

CITY OF MONROE
PUBLIC ENTERPRISE COMMITTEE
300 W. CROWELL STREET, MONROE, NC 28112
TUESDAY, JULY 1, 2025 - 4:00 PM
AGENDA
www.monroenc.org

1. Minutes Public Enterprise Committee Meeting June 3, 2025
2. Updates to City Ordinance Chapter 159: Stormwater Management and Creation of Chapter 156: Floodplain Regulations
3. Updates to City Ordinance Chapter 159: Stormwater Management
4. Purchase of one(1) Komatsu WA200-8 Wheel Loader

Public Enterprise Committee Minutes
June 3, 2025
City Hall Conference Room
4:00 p.m.

Members Present: Council Member Franco McGee, Council Member Julie Thompson

Staff: Terry Sholar, Richard Long, Rob Miller, Lisa Hollowell, Mark Watson
Ashley Ivey, Amy Cook, Rich Riser, Jeff Wells, Sarah McAllister, Jay
Voyles, Lisa Strickland, and Sandra Slifer

Council Member Julie Thompson called the June 3, 2025 Public Enterprise Committee meeting to order at 4:00 p.m.

Item #1: Adoption of Minutes of the May 6, 2025 Meeting

Recommendation:

Council Member Julie Thompson asked if anyone had any questions or concerns about the minutes, if not, if anyone would like to make a motion that the minutes of the May 6, 2025 Public Enterprise Committee be approved.

Motion: Adopt May 6, 2025 meeting minutes

Motion made by: Council Member Julie Thompson

Second: Council Member James Karr

Voting: **In Favor** – Council Member Julie Thompson Council Member James
Kerr

Opposed – None

Action: Motion approved

Item #2: Budget Amendment to Transfer Sutherland Avenue Land Asset

Recommendation:

The Public Enterprise Committee requested to send to the City Council Consent Agenda on June 10, 2025 for approval of the attached budget amendment to transfer land asset # 2322 from the Water & Sewer Fund to the Electric Fund.

Presentation and Discussion:

Lisa Strickland, Director of Finance, made a favorable recommendation to send to City Council Consent Agenda on June 10, 2025 the approval of the budget amendment to transfer land asset # 2322 from the Water & Sewer Fund to the Electric Fund.

The Budget amendment BA-2025-19 as showed below is necessary to transfer Sutherland Avenue Land asset # 2322 parcel # 0918064-A including 73.65 acres from the Water Fund to the Electric Fund.

Water Fund:

| | | |
|----------|-------------------------------|---------------|
| Revenue: | | |
| | Sale of Land | \$3,200,000 |
| | Appropriation to Fund Balance | (\$3,200,000) |

Electric Fund:

| | | |
|----------|-------------------------------|-------------|
| Expense: | | |
| | Transfer to Water Fund | \$3,200,000 |
| Revenue: | | |
| | Appropriation of Fund Balance | \$3,200,000 |

Motion: Approval of the budget amendment to transfer land asset #2322 from the Water & Sewer Fund to the Electric Fund and to send to the City Council Consent Agenda on June 10, 2025.

Motion made by: Council Member Julie Thompson

Second: Council Member James Kerr

Voting: **In Favor** – Council Member Julie Thompson, Council Member James Kerr

Opposed – None

Action: Motion approved

Item #3: Annual Bid Award for Water Resources Treatment Chemicals FY 2026

Recommendation:

The Water Resources Department is requesting that The Public Enterprise Committee forward to City Council for consideration on the June 10, 2025 consent agenda that contracts be awarded to the Vendors identified for the water and wastewater treatment chemicals based on the results of the Annual Water Resources Department Treatment Chemicals bid.

Presentation and Discussion:

Amy Cook, Water Resources General Manger of Operations, presented that on April 4, 2025 staff received annual bids for the Water and Wastewater Treatment Chemicals. In addition to unit pricing, a performance evaluation pf Powder Activated Carbon was required to be submitted by vendors submitting bids. The list of recommended awards based on pricing and the performance testing results are:

| Product | Vendor | Price per Dry LB |
|---------------------------|-------------------------|--------------------------------|
| Liquid Chlorine | Brenntag Mid-South Inc. | \$2,249/ton |
| Zinc Ortho Polyphosphate | Sterling Water | \$1.8935/lb |
| Sulfur Dioxide | JCI Jones Chemicals | \$1,850/ton and \$224/cylinder |
| Dry Cationic Polymer- WTP | SNF Polydyne | \$1.98/lb Clarifoc C-3226 |
| Dry Non-Ionic Polymer | SNF Polydyne | \$1.50/lb Clarifoc N-3300P |

| | | |
|---------------------------|---------------------------|-----------------------------|
| Calcium Hydroxide Slurry | Polytec Inc. | 0.08 /dry lb |
| Dry Cationic Polymer-WWTP | SNF Polydyne | \$1.98/lb Clarifloc SE-1278 |
| Powder Activated Carbon | Calgon Carbon Corporation | \$1.40/lb |

Funding for all Water and Wastewater Treatment Chemicals will be available beginning July 1, 2025 and upon approval of the FY26 Water Resources Operation Budget.

Motion: To forward to City Council for consideration on the June 10, 2025 consent agenda, the award of contracts based on the Vendors previously identified for the water and wastewater treatment chemicals based on the results of the Annual Water Resources Department Treatment Chemical Bid and authorize the City Manager to execute the associated contracts for fiscal year 2026.

Motion made by: Council Member James Kerr

Second: Council Member Julie Thompson

Voting: **In Favor** – Council Member James Kerr, Council Member Julie Thompson, Council Member Franco McGee

Opposed – None

Action: Motion approved

There being no further business, the meeting was adjourned at 4:12 p.m.

James Kerr, Chair

Next Meeting- July 1, 2025.



STAFF REPORT

TO: Public Enterprise Committee

VIA: Mark Watson, City Manager

DATE: July 1, 2025

FROM: Sarah McAllister, P.E., Engineering Director

PREPARED BY: Bonnie Fisher, P.E. – Stormwater Engineering Manager

SUBJECT: Updates to City Ordinance Chapter 159: *Stormwater Management* and Creation of Chapter 156: *Floodplain Regulations*

SUMMARY STATEMENT

The Public Enterprise Committee is requested to consider recommended updates to the City of Monroe Code of Ordinances Chapter 159: *Stormwater Management Ordinance* by moving Sections 159.801 through 159.805 into a proposed new Chapter 156: *Floodplain Regulations*.

REVIEW

A comprehensive review of Chapter 159: *Stormwater Management Ordinance* was conducted by Stormwater staff. Sections 159.801 through 159.805 form a subsection of this chapter called “Floodplain and Floodway Districts” and addresses floodplain overlay districts, subdivision requirements, and the State-modeled Flood Damage Prevention Ordinance. Proposed revisions to the floodplain regulations are detailed in the attached tracked changes document, which shows the sections that are deleted from Chapter 159 incorporated and renumbered into the proposed Chapter 156: *Floodplain Regulations*.

Below is a summary of the Section number changes. Note that the Flood Damage Prevention Ordinance section is moved to the front of the new chapter.

| Section Title | Current Section Number | Proposed Section Number |
|---|------------------------|-------------------------|
| Floodplain and Floodway Districts | 159.801 | 156.802 |
| Obstructions | 159.802 | 156.803 |
| Flood Damage Prevention Ordinance | 159.803 | 156.801 |
| Floodplain subdivision Provisions | 159.804 | 156.804 |
| Boundaries of floodplain and floodway districts | 159.805 | 156.805 |

The proposed text revisions and updates have been reviewed and approved by City Legal staff and the North Carolina Division Emergency Management (NCDEM) National Flood Insurance Program (NFIP) Planner. After adoption, a copy of the signed and sealed Ordinance is required to be sent to NCDEM and FEMA for their records.

RECOMMENDATION

Staff recommends approval of Ordinance Amendment O-2025-23. If the Public Enterprise Committee is in agreement, the items will be placed on the consent agenda for consideration by City Council at the next meeting on July 8, 2025.

Attachments: Tracked changes for Chapter 156 *Floodplain Regulations* (formerly Sections 159.801 through 159.805 of the *Stormwater Management Ordinance*)
Proposed Code of Ordinances Chapter 156 *Floodplain Regulations*

CHAPTER 156: FLOODPLAIN REGULATIONS:
**FLOOD DAMAGE PREVENTION ORDINANCE, FLOODPLAIN AND FLOODWAY
DISTRICTS, SUBDIVISION PROVISIONS**

Commented [BAF1]: Create New Chapter called "Floodplain Regulations", with subheading as shown

156.801 FLOOD DAMAGE PREVENTION ORDINANCE

Commented [BAF2]: Formerly Stormwater ordinance Section 159.803

(A) Statutory authorization, findings of fact, purpose and objectives.

(1) Statutory authorization. The Legislature of the State of North Carolina has in G.S. Part 6, Article 21 of Chapter 143; Article 6 of Chapter 153A; Article 8 of Chapter 160A; and Article 7, 9, and 11 of Chapter 160D delegated to local governmental units the authority to adopt regulations designed to promote the public health, safety, and general welfare. Therefore, the City Council of the City of Monroe, North Carolina, does ordain as follows:

(2) Findings of fact.

(a) The flood prone areas within the jurisdiction of Monroe are subject to periodic inundation which results in loss of life, property, health and safety hazards, disruption of commerce and governmental services, extraordinary public expenditures of flood protection and relief, and impairment of the tax base, all of which adversely affect the public health, safety, and general welfare.

(b) These flood losses are caused by the cumulative effect of obstructions in floodplains causing increases in flood heights and velocities and by the occupancy in flood prone areas of uses vulnerable to floods or other hazards.

(3) Statement of purpose. It is the purpose of this ordinance to promote public health, safety, and general welfare and to minimize public and private losses due to flood conditions within flood prone areas by provisions designed to:

(a) Restrict or prohibit uses that are dangerous to health, safety, and property due to water or erosion hazards or that result in damaging increases in erosion, flood heights or velocities;

(b) Require that uses vulnerable to floods, including facilities that serve such uses, be protected against flood damage at the time of initial construction;

(c) Control the alteration of natural floodplains, stream channels, and natural protective barriers, which are involved in the accommodation of flood waters;

(d) Control filling, grading, dredging, and all other development that may increase erosion or flood damage; and

(e) Prevent or regulate the construction of flood barriers that will unnaturally divert flood waters or which may increase flood hazards to other lands.

(4) Objectives. The objectives of this ordinance are to:

(a) Protect human life, safety, and health;

- (b) Minimize expenditure of public money for costly flood control projects;
- (c) Minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;
- (d) Minimize prolonged business losses and interruptions;
- (e) Minimize damage to public facilities and utilities (i.e. water and gas mains, electric, telephone, cable and sewer lines, streets, and bridges) that are located in flood prone areas;
- (f) Minimize damage to private and public property due to flooding;
- (g) Make flood insurance available to the community through the National Flood Insurance Program;
- (h) Maintain the natural and beneficial functions of floodplains;
- (i) Help maintain a stable tax base by providing for the sound use and development of flood prone areas; and
- (j) Ensure that potential buyers are aware that property is in a special flood hazard area.

Commented [TS3]: Is this something the City can do?

Commented [BAF4R3]: City Ordinances that adhere to the NFIP standards makes the flood insurance available to citizens

Commented [WF5R3]: Yes Bonnie you are correct. By joining the program (Monroe is already in) and agreeing to adopt and enforce the flood ordinance, this allow the citizens to purchase subsidized flood insurance.

(B) Definitions.

Unless specifically defined below, words or phrases used in this ordinance shall be interpreted so as to give them the meaning they have in common usage and to give this ordinance its most reasonable application.

ACCESSORY STRUCTURE (APPURTENANT STRUCTURE). A structure located on the same parcel of property as the principal structure and the use of which is incidental to the use of the principal structure. Garages, carports and storage sheds are common urban accessory structures. Pole barns, hay sheds and the like qualify as accessory structures on farms, and may or may not be located on the same parcel as the farm dwelling or shop building.

ADDITION (TO AN EXISTING BUILDING). An extension or increase in the floor area or height of a building or structure.

ALTERATION OF WATERCOURSE. A dam, impoundment, channel relocation, change in channel alignment, channelization, or change in cross-sectional area of the channel or the channel capacity, or any other form of modification which may alter, impede, retard or change the direction and/or velocity of the riverine flow of water during conditions of the base flood.

APPEAL. A request for a review of the Floodplain Administrator’s interpretation of any provision of this ordinance.

AREA OF SHALLOW FLOODING. A designated Zone AO on a community's Flood Insurance Rate Map (FIRM) with base flood depths determined to be from one (1) to three (3) feet. These areas are located where a clearly defined channel does not exist, where the path of flooding is unpredictable and indeterminate, and where velocity flow may be evident.

AREA OF SPECIAL FLOOD HAZARD. See SPECIAL FLOOD HAZARD AREA (SFHA).

BASE FLOOD. The flood having a 1% chance of being equaled or exceeded in any given year.

BASE FLOOD ELEVATION (BFE). A determination of the water surface elevations of the base flood as published in the Flood Insurance Study. When the BFE has not been provided in a SPECIAL FLOOD HAZARD AREA, it may be obtained from engineering studies available from a federal, state, or other source using FEMA approved engineering methodologies. This elevation, when combined with the FREEBOARD, establishes the REGULATORY FLOOD PROTECTION ELEVATION.

BASEMENT. Any area of the building having its floor sub grade (below ground level) on all sides.

BUILDING. See STRUCTURE.

CERTIFIED LOCAL GOVERNMENT (CLG) PROGRAMS. Approved by the U.S. Department of the Interior in cooperation with the North Carolina Department of Cultural Resources through the State Historic Preservation Officer as having met the requirements of the National Historic Preservation Act of 1966 as amended in 1980.

CHEMICAL STORAGE FACILITY. A building, portion of a building, or exterior area adjacent to a building used for the storage of any chemical or chemically reactive products.

DESIGN FLOOD. See REGULATORY FLOOD PROTECTION ELEVATION.

DEVELOPMENT. Any man-made change to improved or unimproved real estate, including, but not limited to, buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations, or storage of equipment or materials.

DEVELOPMENT ACTIVITY. Means any activity defined as Development which will necessitate a FLOODPLAIN DEVELOPMENT PERMIT. This includes buildings, structures, and non-structural items, including (but not limited to) fill, bulkheads, piers, pools, docks, landings, ramps, and erosion control/stabilization measures.

DIGITAL FLOOD INSURANCE RATE MAP (DFIRM). Means the digital official map of a community, issued by the Federal Emergency Management Agency (FEMA), on which both the Special Flood Hazard Areas and the risk premium zones applicable to the community are delineated.

DISPOSAL. As defined in G.S. § 130A-290(a)(6), the discharge, deposit, injection, dumping, spilling, leaking, or placing of any solid waste into or on any land or water so that the solid waste or any constituent part of the solid waste may enter the environment or be emitted into the air or discharged into any waters, including groundwaters.

Commented [TS6]: Very broad term.

Commented [BAF7R6]: This was the definition provided in the NC Model Ordinance. Should it be more specific, like "Natural" environment?

Commented [WF8R6]: This is the definition taken directly from the NC GS 130A-290(a)(6). I would not alter it as it has been approved by both our legal counsel and FEMA. Thus the reason it is in the model ordinance.

Commented [BAF9R6]: Term left as is

ELEVATED BUILDING. A non-basement building which has its lowest elevated floor raised above ground level by foundation walls, shear walls, posts, piers, pilings, or columns.

ENCROACHMENT. The advance or infringement of uses, fill, excavation, buildings, structures or development into a Special Flood Hazard Area, which may impede or alter the flow capacity of a floodplain.

EXISTING BUILDING AND EXISTING STRUCTURE. Any building and/or structure for which the START OF CONSTRUCTION commenced before the effective date of this ordinance.

EXISTING MANUFACTURED HOME PARK or MANUFACTURED HOME SUBDIVISION. A manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including, at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed before the effective date of this ordinance.

FLOOD or FLOODING. A general and temporary condition of partial or complete inundation of normally dry land areas from:

- (a) The overflow of inland or tidal waters; and/or
- (b) The unusual and rapid accumulation or runoff of surface waters from any source.

FLOOD BOUNDARY AND FLOODWAY MAP (FBFM). An official map of a community, issued by the Federal Emergency Management Agency, on which the special flood hazard areas and the floodways are delineated. This official map is a supplement to and shall be used in conjunction with the Flood Insurance Rate Map (FIRM).

FLOOD HAZARD BOUNDARY MAP (FHBM). An official map of a community, issued by the Federal Emergency Management Agency, where the boundaries of the special flood hazard areas have been defined as Zone A.

FLOOD INSURANCE. The insurance coverage provided under the National Flood Insurance Program.

FLOOD INSURANCE RATE MAP (FIRM). An official map of a community, issued by the Federal Emergency Management Agency, on which both the special flood hazard areas and the risk premium zones applicable to the community are delineated.

FLOOD INSURANCE STUDY (FIS). An examination, evaluation, and determination of flood hazards, corresponding water surface elevations (if appropriate), flood hazard risk zones, and other flood data in a community issued by the Federal Emergency Management Agency. The Flood Insurance Study report includes Flood Insurance Rate Maps (FIRMs) and Flood Boundary and Floodway Maps (FBFMs), if published.

FLOOD PRONE AREA. See FLOODPLAIN.

FLOOD ZONE. A geographical area shown on a Flood Hazard Boundary Map or Flood Insurance Rate Map that reflects the severity or type of flooding in the area.

FLOODPLAIN. Any land area susceptible to being inundated by water from any source.

Commented [TS10]: What does Manufactured include? Mobile Home? Modular Home? Prefabricated? Based on definition below, it does not include modular home. Only includes mobile homes on a chassis .

Commented [BAF11R10]: Modular homes would be considered the same as a single family dwelling under this ordinance. Special conditions for floodplain apply to Mobile/manufactured homes and parks

Commented [WF12R10]: Bonnie I think the definition of manufactured homes in the ordinance also includes modular homes:

“Manufactured Home” means a structure, transportable in one or more sections, which is built on a permanent chassis and designed to be used with or without a permanent foundation when connected to the required utilities. The term “manufactured home” does not include a “recreational vehicle

Commented [BAF13R10]: Text left as is

FLOODPLAIN ADMINISTRATOR. The individual appointed to administer and enforce the floodplain management regulations.

FLOODPLAIN DEVELOPMENT PERMIT. Any type of permit that is required in conformance with the provisions of this ordinance, prior to the commencement of any development activity.

FLOODPLAIN MANAGEMENT. The operation of an overall program of corrective and preventive measures for reducing flood damage and preserving and enhancing, where possible, natural resources in the floodplain, including, but not limited to, emergency preparedness plans, flood control works, floodplain management regulations, and open space plans.

FLOODPLAIN MANAGEMENT REGULATIONS. This ordinance and other zoning ordinances, subdivision regulations, building codes, health regulations, special purpose ordinances, and other applications of police power. This term describes federal, state or local regulations, in any combination thereof, which provide standards for preventing and reducing flood loss and damage.

FLOODPROOFING. Any combination of structural and nonstructural additions, changes, or adjustments to structures which reduce or eliminate flood damage to real estate or improved real property, water and sanitation facilities, structures, and their contents.

FLOOD-RESISTANT MATERIAL. Means any building product [material, component or system] capable of withstanding direct and prolonged contact (minimum 72 hours) with floodwaters without sustaining damage that requires more than low-cost cosmetic repair. Any material that is water-soluble or is not resistant to alkali or acid in water, including normal adhesives for above-grade use, is not flood-resistant. Pressure-treated lumber or naturally decay-resistant lumbers are acceptable flooring materials. Sheet-type flooring coverings that restrict evaporation from below and materials that are impervious, but dimensionally unstable are not acceptable. Materials that absorb or retain water excessively after submergence are not flood-resistant. Please refer to Technical Bulletin 2, Flood Damage-Resistant Materials Requirements, and available from the FEMA. Class 4 and 5 materials, referenced therein, are acceptable flood-resistant materials.

FLOODWAY. The channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than one (1) foot.

FLOODWAY ENCROACHMENT ANALYSIS. An engineering analysis of the impact that a proposed encroachment into a floodway or non-encroachment area is expected to have on the floodway boundaries and flood levels during the occurrence of the base flood discharge. The evaluation shall be prepared by a qualified North Carolina licensed engineer using standard engineering methods and hydraulic models meeting the minimum requirements of the National Flood Insurance Program.

FREEBOARD. The height added to the Base Flood Elevation (BFE) to account for the many unknown factors that could contribute to flood heights greater than the height calculated for a selected size flood and floodway conditions, such as wave action, blockage of bridge or culvert openings, precipitation exceeding the base flood, and the hydrological effect of urbanization of

the watershed. The Base Flood Elevation (BFE) plus the freeboard establishes the REGULATORY FLOOD PROTECTION ELEVATION. The freeboard as defined by this Ordinance shall be two (2.0) feet.

Commented [BAF14]: Regulated Freeboard depth is called out in the definition

FUNCTIONALLY DEPENDENT FACILITY. A facility which cannot be used for its intended purpose unless it is located in close proximity to water, limited to a docking or port facility necessary for the loading and unloading of cargo or passengers, shipbuilding, or ship repair. The term does not include long-term storage, manufacture, sales, or service facilities.

HAZARDOUS WASTE MANAGEMENT FACILITY. As defined in G.S. Chapter 130A, Art. 9, a facility for the collection, storage, processing, treatment, recycling, recovery, or disposal of hazardous waste.

HIGHEST ADJACENT GRADE (HAG). The highest natural elevation of the ground surface, prior to construction, immediately next to the proposed walls of the structure.

HISTORIC STRUCTURE. Any structure that is:

(a) Listed individually in the National Register of Historic Places (a listing maintained by the U.S. Department of Interior) or preliminarily determined by the Secretary of Interior as meeting the requirements for individual listing on the National Register;

(b) Certified or preliminarily determined by the Secretary of Interior as contributing to the historical significance of a registered historic district or a district preliminarily determined by the Secretary to qualify as a registered historic district;

(c) Individually listed on a local inventory of historic landmarks in communities with a CERTIFIED LOCAL GOVERNMENT (CLG) PROGRAM; or

(d) Certified as contributing to the historical significance of a historic district designated by a community with a CERTIFIED LOCAL GOVERNMENT (CLG) PROGRAM.

LETTER OF MAP CHANGE (LOMC). Means an official determination issued by FEMA that amends or revises an effective Flood Insurance Rate Map or Flood Insurance Study. Letters of Map Change include:

(a) **LETTER OF MAP AMENDMENT (LOMA).** An official amendment, by letter, to an effective National Flood Insurance Program map. A LOMA is based on technical data showing that a property had been inadvertently mapped as being in the floodplain but is actually on natural high ground above the base flood elevation. A LOMA amends the current effective Flood Insurance Rate Map and establishes that a specific property, portion of a property, or structure is not located in a special flood hazard area.

(b) **LETTER OF MAP REVISION (LOMR).** A revision based on technical data that may show changes to flood zones, flood elevations, special flood hazard area boundaries and floodway delineations, and other planimetric features.

(c) **LETTER OF MAP REVISION BASED ON FILL (LOMR-F).** A determination that a structure or parcel of land has been elevated by fill above the BFE and is, therefore, no longer located within the special flood hazard area. In order to qualify for this determination, the fill must have been permitted and placed in accordance with the community's floodplain management regulations

(d) **CONDITIONAL LETTER OF MAP REVISION (CLOMR).** A formal review and comment as to whether a proposed project complies with the minimum NFIP requirements for

such projects with respect to delineation of Special Flood Hazard Areas. A CLOMR does not revise the effective Flood Insurance Rate Map or Flood Insurance Study; upon submission and approval of certified as-built documentation, a Letter of Map Revision may be issued by FEMA to revise the effective FIRM.

LIGHT DUTY TRUCK. Any motor vehicle rated at 8,500 pounds gross vehicular weight rating or less which has a vehicular curb weight of 6,000 pounds or less and which has a basic vehicle frontal area of 45 square feet or less as defined in 40 CFR 86.082-2 and is:

- (a) Designed primarily for purposes of transportation of property or is a derivation of such a vehicle;
- (b) Designed primarily for transportation of persons and has a capacity of more than 12 persons; or
- (c) Available with special features enabling off-street or off-highway operation and use.

LOWEST ADJACENT GRADE (LAG). The lowest elevation of the ground, sidewalk or patio slab immediately next to the building, or deck support, after completion of the building.

LOWEST FLOOR. The lowest floor of the lowest enclosed area (including basement). An unfinished or flood resistant enclosure, usable solely for parking of vehicles, building access, or limited storage in an area other than a basement area is not considered a building's lowest floor, provided that such an enclosure is not built so as to render the structure in violation of the applicable non-elevation design requirements of this ordinance.

MANUFACTURED HOME. A structure, transportable in one or more sections, which is built on a permanent chassis and designed to be used with or without a permanent foundation when connected to the required utilities. The term MANUFACTURED HOME does not include a RECREATIONAL VEHICLE.

MANUFACTURED HOME PARK OR SUBDIVISION. A parcel (or contiguous parcels) of land divided into two or more manufactured home lots for rent or sale.

MAP REPOSITORY. Means the location of the official flood hazard data to be applied for floodplain management. It is a central location in which flood data is stored and managed; in North Carolina, FEMA has recognized that the application of digital flood hazard data products carry the same authority as hard copy products. Therefore, the NCEM's Floodplain Mapping Program websites house current and historical flood hazard data. For effective flood hazard data the NC FRIS website (<http://FRIS.NC.GOV/FRIS>) is the map repository, and for historical flood hazard data the FloodNC website (<http://FLOODNC.GOV/NCFLOOD>) is the map repository.

MARKET VALUE. The building value, not including the land value and that of any accessory structures or other improvements on the lot. Market value may be established by independent certified appraisal; replacement cost depreciated for age of building and quality of construction (actual cash value); or adjusted tax assessed values.

NEW CONSTRUCTION. Structures for which the "start of construction" commenced on or after the effective date of the initial floodplain management regulations and includes any subsequent improvements to such structures.

NON-CONVERSION AGREEMENT. A document stating that the owner will not convert or alter what has been constructed and approved. Violation of the agreement is considered a violation of the ordinance and, therefore, subject to the same enforcement procedures and penalties. The agreement must be filed with the recorded deed for the property. The agreement must show the clerk's or recorder's stamps and/or notations that the filing has been completed.

Commented [BAF15]: New definition added; (applies to structures within the floodplain that are approved with open non-livable spaces such as carports or storage with a floor elevation below the Regulatory Flood Protection elevation, but then later want to create a livable space from the carport area)

NON-ENCROACHMENT AREA (NEA). The channel of a river or other watercourse, including the area above a bridge or culvert when applicable, and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than one (1) foot as designated in the Flood Insurance Study report.

Commented [TS16]: Appears regulatory and not definition

Regulatory text included in the "Elevated Buildings" section

POST-FIRM. Means construction or other development for which the "start of construction" occurred on or after the effective date of the initial Flood Insurance Rate Map.

Commented [BAF17R16]: Complete definition from the Model ordinance now included in Definitions section

PRE-FIRM. Means construction or other development for which the "start of construction" occurred before the effective date of the initial Flood Insurance Rate Map.

PRINCIPALLY ABOVE GROUND. That at least 51% of the actual cash value of the structure is above ground.

RECREATIONAL VEHICLE (RV).

(a) A vehicle, which is:

1. Built on a single chassis;
2. Four hundred (400) square feet or less when measured at the largest horizontal projection;
3. Designed to be self-propelled or permanently towable by a light duty truck;
4. Designed primarily not for use as a permanent dwelling, but as temporary living quarters for recreational, camping, travel, or seasonal use; and
5. Is fully licensed and ready for highway use.

(b) For the purpose of this ordinance, "tiny homes/houses" and park models that do not meet the items listed above are not considered recreational vehicles and should meet the standards of and be permitted as residential structures.

Commented [18]: The State recommends four (4) feet of freeboard, do we know why we went with 2? Do we want to keep or update?

Commented [BAF19R18]: Bring to Public Enterprise Committee to discuss with higher standards? Not at this time; stay with current freeboard of two feet

Commented [WF20R18]: The state definition of 4 feet came from the 2020 North Carolina Climate Risk Assessment and Resilience Plan where four feet was required in coastal high hazard areas and it is a recommendation for the non-coastal communities, thus in this model FDPO. With the Risk 2.0 flood insurance, the insurance premiums are based on the actual conditions at the location of the request. Building higher will lessen premiums and while the cost of building will be incurred as extra expense, the savings for doing so would be seen every time the owner renews his flood insurance. We have seen several communities out west since the hurricane inquire and even raise their freeboard. It is entirely up to you.

Commented [BAF21R18]: two feet will remain as standard at this time

REFERENCE LEVEL. The bottom of the lowest horizontal structural member of the lowest floor for structures within all Special Flood Hazard Areas.

REGULATORY FLOOD PROTECTION ELEVATION. The BASE FLOOD ELEVATION plus the FREEBOARD. In SPECIAL FLOOD HAZARD AREAS where Base Flood Elevations (BFEs) have been determined, this elevation shall be the BFE plus two feet of freeboard, as defined by this Ordinance. In SPECIAL FLOOD HAZARD AREAS where no BFE has been established, this elevation shall be at least two feet above the highest adjacent grade.

Commented [BAF22]: Clarification added to definitions regarding required freeboard; see "freeboard" definition

REMEDY A VIOLATION. To bring the structure or other development into compliance with state and community floodplain management regulations, or, if this is not possible, to reduce the impacts of its noncompliance. Ways that impacts may be reduced include protecting the structure or other affected development from flood damages, implementing the enforcement provisions of the ordinance or otherwise deterring future similar violations, or reducing federal financial exposure with regard to the structure or other development.

RIVERINE. Relating to, formed by, or resembling a river (including tributaries), stream, brook, etc.

SALVAGE YARD. Any non-residential property used for the storage, collection, and/or recycling of any type of equipment, and including but not limited to vehicles, appliances and related machinery.

SOLID WASTE DISPOSAL FACILITY. Any facility involved in the disposal of solid waste, as defined in G.S. § 130A-290(a)(35).

SOLID WASTE DISPOSAL SITE. As defined in G.S. § 130A-290(a)(36), any place at which solid wastes are disposed of by incineration, sanitary landfill, or any other method.

SPECIAL FLOOD HAZARD AREA (SFHA). The land in the floodplain subject to a 1% or greater chance of being flooded in any given year, as determined in division (C)(2) of this section.

START OF CONSTRUCTION. Includes substantial improvement, and means the date the building permit was issued, provided the actual start of construction, repair, reconstruction, rehabilitation, addition placement, or other improvement was within 180 days of the permit date. The actual start means either the first placement of permanent construction of a structure on a site, such as the pouring of slab or footings, the installation of piles, the construction of columns, or any work beyond the stage of excavation; or the placement of a manufactured home on a foundation. Permanent construction does not include land preparation, such as clearing, grading, and filling; nor does it include the installation of streets and/or walkways; nor does it include excavation for a basement, footings, piers, or foundations or the erection of temporary forms; nor does it include the installation on the property of accessory buildings, such as garages or sheds not occupied as dwelling units or not part of the main structure. For a substantial improvement, the actual start of construction means the first alteration of any wall, ceiling, floor, or other structural part of the building, whether or not that alteration affects the external dimensions of the building.

STRUCTURE. A walled and roofed building, a manufactured home, or a gas, liquid, or liquefied gas storage tank that is principally above ground.

SUBSTANTIAL DAMAGE. Damage of any origin sustained by a structure during any ten-year period whereby the cost of restoring the structure to its before damaged condition would equal or exceed 50% of the market value of the structure before the damage occurred. See definition of “substantial improvement”. **Substantial** damage also means flood-related damage sustained by a structure on two separate occasions during a 10-year period for which the cost of repairs at the time of each such flood event, on the average, equals or exceeds 25 % of the market value of the structure before the damage occurred.

Commented [BAF23]: Definition added to match text found later in the ordinance

SUBSTANTIAL IMPROVEMENT. Any combination of repairs, reconstruction, rehabilitation, addition, or improvement of a building or structure, taking place during a ten-year period, the cumulative cost of which equals or exceeds 50% of the market value of the structure before the “start of construction” of the improvement. This term includes structures which have incurred “substantial damage”, regardless of the actual repair work performed. The term does not, however, include either:

(a) Any correction of existing violations of state or community health, sanitary, or safety code specifications which have been identified by the community code enforcement official and which are the minimum necessary to assure safe living conditions; or

(b) Any alteration of a historic structure, provided that the alteration will not preclude the structure’s continued designation as a historic structure.

TECHNICAL BULLETIN AND TECHNICAL FACT SHEET. Means a FEMA publication that provides guidance concerning the building performance standards of the NFIP, which are contained in Title 44 of the U. S. Code of Federal Regulations at Section 60.3. The bulletins and fact sheets are intended for use primarily by State and local officials responsible for interpreting and enforcing NFIP regulations and by members of the development community, such as design professionals and builders. New bulletins, as well as updates of existing bulletins, are issued periodically as needed. The bulletins do not create regulations; rather they provide specific guidance for complying with the minimum requirements of existing NFIP regulations. It should be noted that Technical Bulletins and Technical Fact Sheets provide guidance on the minimum requirements of the NFIP regulations. State or community requirements that exceed those of the NFIP take precedence. Design professionals should contact the community officials to determine whether more restrictive state or local regulations apply to the building or site in question. All applicable standards of the state or local building code must also be met for any building in a flood hazard area.

TEMPERATURE CONTROLLED. Having the temperature regulated by a heating and/or cooling system, built-in or appliance.

THREAT TO PUBLIC SAFETY and/or NUISANCE. Anything which is injurious to the safety or health of an entire community or neighborhood, or any considerable number of persons, or unlawfully obstructs the free passage or use, in the customary manner, of any navigable lake, or river, bay, stream, canal, or basin.

VARIANCE. The grant of relief from the requirements of this ordinance.

VIOLATION. The failure of a structure or other development to be fully compliant with the community’s floodplain management regulations. A structure or other development without the elevation certificate, other certifications, or other evidence of compliance required in divisions (D) and (E) is presumed to be in violation until such time as that documentation is provided.

WATER SURFACE ELEVATION (WSE). The height, in relation to NAVD 1988, of floods of various magnitudes and frequencies in the floodplains of coastal or riverine areas.

WATERCOURSE. A lake, river, creek, stream, wash, channel or other topographic feature on or over which waters flow at least periodically. Watercourse includes specifically designated areas in which substantial flood.

(C) General provisions.

(1) Applicability. This ordinance shall apply to all Special Flood Hazard Areas within the jurisdiction, including extra-territorial jurisdictions, of the City of Monroe.

(2) Basis for Establishing the Special Flood Hazard Areas. The Special Flood Hazard Areas are those identified under the Cooperating Technical State (CTS) agreement between the State of North Carolina and FEMA in its Flood Insurance Study (FIS) dated October 16, 2008, shown on FIS for Union County and associated DFIRM panels, including any digital data developed as part of the FIS, which are adopted by reference and declared a part of this ordinance, and all revisions thereto.

(3) Floodplain development permit. A floodplain development permit shall be required in conformance with the provisions of this ordinance prior to the commencement of any development activities within Special Flood Hazard Areas determined per (C)(2) general provisions, special flood hazard areas above.

(4) Compliance. No structure or land shall hereafter be located, extended, converted, altered, or developed in any way without full compliance with the terms of this ordinance and other applicable regulations.

(5) Abrogation and Greater Restrictions. This ordinance is not intended to repeal, abrogate, or impair any existing easements, covenants, or deed restrictions. However, where this ordinance and another conflict or overlap, whichever imposes the more stringent restrictions shall prevail.

(6) Interpretation. In the interpretation and application of this ordinance, all provisions shall be:

- (a) Considered as minimum requirements;
- (b) Liberally construed in favor of the governing body; and
- (c) Deemed neither to limit nor repeal any other powers granted under State statutes.

(7) Warning and Disclaimer of Liability. The degree of flood protection required by this ordinance is considered reasonable for regulatory purposes and is based on scientific and engineering consideration. Larger floods can and will occur. Actual flood heights may be increased by man-made or natural causes. This ordinance does not imply that land outside the Special Flood Hazard Areas or uses permitted within such areas will be free from flooding or flood damages. This ordinance shall not create liability on the part of the City of Monroe or by any officer or employee thereof for any flood damages that result from reliance on this ordinance or any administrative decision lawfully made hereunder.

(8) Penalties for violation. Violation of the provision of this ordinance or failure to comply with any of its requirements, including violation of conditions and safeguards established in connection with grants of variance or special exceptions, shall constitute a Class 1 misdemeanor pursuant to G.S. § 143-215.58. Any person who violates this ordinance or fails to comply with any of its requirements shall, upon conviction thereof, be fined not more than \$100 or imprisoned for not more than thirty (30) days, or both. Each day such violation continues shall be considered

Commented [TS24]: May want to reference Sec. 4 p 19 for remedy provisions. Criminal penalty does not remedy the violation.

Commented [BAF25R24]: Reference added

Commented [TS26]: Can't be adopted the day it is first introduced.

Commented [BAF27R26]: ok

a separate offense. Nothing herein contained shall prevent the City of Monroe from taking such other lawful action as is necessary to prevent or remedy any violation. See Section (D)(4) for corrective procedures.

(D) Administration.

(1) **Designation of Floodplain Administrator.** The Stormwater Engineering Manager is hereby appointed to administer and implement the provisions of this ordinance as Floodplain Administrator. In instances where the Floodplain Administrator receives assistance from others to complete tasks to administer and implement this ordinance, the Floodplain Administrator shall be responsible for the coordination and community's overall compliance with the National Flood Insurance Program and the provisions of this ordinance.

(2) Floodplain Development Application, Permit and Certification Requirements.

(a) **Application Requirements.** Application for a Floodplain Development Permit shall be made to the Floodplain Administrator prior to any development activities located within Special Flood Hazard Areas. The following items shall be presented to the Floodplain Administrator to apply for a floodplain development permit:

1. A **plot plan** drawn to scale which shall include, but shall not be limited to, the following specific details of the proposed floodplain development:

a. The nature, location, dimensions, and elevations of the area of development/disturbance; existing and proposed structures, utility systems, grading/pavement areas, fill materials, storage areas, drainage facilities, and other development;

b. The boundary of the Special Flood Hazard Areas as delineated on the FIRM or other flood map as determined per (C)(2) general provisions, special flood hazard areas above, or a statement that the entire lot is within the special flood hazard area;

c. Flood zone(s) designation of the proposed development area as determined on the FIRM or other flood map as determined per (C)(2) general provisions, special flood hazard areas above;

d. The boundary of the floodway(s) or non-encroachment area(s) as determined per (C)(2), general provisions, special flood hazard areas above;

e. The Base Flood Elevation (BFE) where provided as set forth per (C)(2) general provisions, special flood hazard areas above; (D)(3) administration, duties and responsibilities of the Floodplain Administrator below; and (E)(4) provisions for flood hazard reduction, standards for floodplains without established base flood elevations below.

f. The old and new location of any watercourse that will be altered or relocated as a result of proposed development; and

g. The certification of **the plot plan by** a registered land surveyor or professional engineer.

Commented [TS28]: Designated by the City Manager
ok

Commented [WF29R28]: There needs to be a staff position named here (City Manager, Planning Director, Zoning Administrator, etc.) as to who is going to handle the floodplain administrator duties. This ordinance will be filed with us and FEMA and this is how we know which person to contact for FPA duties, questions etc. We are required to submit a crosswalk with each revised ordinance and one of the requirements of that crosswalk refers to the establishment of the office for administering the ordinance so that "staff title"

Commented [BAF30R28]: Position of Stormwater Engineering Manager added to the paragraph

Commented [TS31]: Per g below it is a certified survey. Locally, they are called plats.

ok

Commented [WF32R31]: For this instance I would stick with plot plan based on the differences below and the plot plan narrows down to the specific requirements of what is needed The floodplain requirements are specific and a plat may not necessarily be shown and they must be. The only 2 options here are plot or site plan after discussion with Steve about this.

A plat is a scaled map showing how a large area of land (like a subdivision) is divided into smaller lots, while a plot plan focuses on a single property within that larger area, showing its specific features and layout. Plats are often filed with local government, while plot plans are more for individual property use

Commented [BAF33R31]: Text left as "plot plan"

Commented [WF34]: I would change this back to plot plan as described above

Commented [BAF35R34]: Text left as Plot plan

2. Proposed elevation, and method thereof, of all development within a Special Flood Hazard Areas including but not limited to:

- a. Elevation in relation to NAVD 1988 of the proposed reference level (including basement) of all structures;
- b. Elevation in relation to NAVD 1988 to which any nonresidential structure in Zone AE, A, AH, A99, or AO will be floodproofed; and
- c. Elevation in relation to NAVD 1988 to which any proposed utility systems will be elevated or floodproofed.

3. If floodproofing, a Floodproofing Certificate (FEMA Form FF-206-FY22-153) with supporting data, an operational plan, and an inspection and maintenance plan that include, but are not limited to, installation, exercise, and maintenance of floodproofing measure.

Commented [WF36]: The correct form is: (FEMA Form FF-206-FY 22-153)

Commented [BAF37R36]: REVISED

4. A Foundation Plan, drawn to scale, which shall include details of the proposed foundation system to ensure all provisions of this ordinance are met. These details include but are not limited to:

- a. The proposed method of elevation, if applicable (i.e., fill, solid foundation perimeter wall, solid backfilled foundation, open foundation on columns/posts/piers/piles/shear walls); and
- b. Openings to facilitate automatic equalization of hydrostatic flood forces on walls in accordance with this section, when solid foundation perimeter walls are used in Zones A, AE, AH, AO, A99.

5. Usage details of any enclosed areas below the lowest floor.

6. Plans and/or details for the protection of public utilities and facilities such as sewer, gas, electrical, and water systems to be located and constructed to minimize flood damage.

7. Certification that all other Local, State and Federal permits required prior to floodplain development permit issuance have been received.

8. Documentation for placement of Recreational Vehicles and/or Temporary Structures, when applicable, to ensure that the provisions of this ordinance are met.

9. A description of proposed watercourse alteration or relocation, when applicable, including an engineering report on the effects of the proposed project on the flood-carrying capacity of the watercourse and the effects to properties located both upstream and downstream; and a map (if not shown on plot plan) showing the location of the proposed watercourse alteration or relocation.

Commented [WF38]: You will need to change back to plot or site plan as described previously

Commented [BAF39R38]: TEXT left as plot plan

(b) Permit requirements. The floodplain development permit shall include, but not be limited to:

1. A complete description of all the development to be permitted under the floodplain development permit (e. g. house, garage, pool, septic, bulkhead, cabana, pier, bridge, mining, dredging, filling, grading, paving, excavation or drilling operations, or storage of equipment or materials, etc.)

2. The Special Flood Hazard Area determination for the proposed development in accordance with available data specified in this ordinance.

3. The Regulatory Flood Protection Elevation required for the reference level and all attendant utilities.

4. The Regulatory Flood Protection Elevation required for the protection of all public utilities.

5. All certification submittal requirements with timelines.

6. A statement that no fill material or other development shall encroach into the floodway or non-encroachment area of any watercourse, unless the requirements in (E)(5) provisions for flood hazard reduction, floodways and non-encroachment areas are met.

7. The flood openings requirements.

8. Limitations on use of enclosed areas below the lowest floor (if applicable), i.e., parking, building access and limited storage only.

9. A statement that all materials below BFE/RFPE must be flood resistant materials.

(c) Certification requirements.

1. Elevation Certificates

a. Elevation Certificate (FEMA Form FF-206-FY22-152) is required prior to the actual start of any new construction. It shall be the duty of the permit holder to submit to the Floodplain Administrator a certification of the elevation of the reference level, in relation to NAVD 1988. The Floodplain Administrator shall review the certificate data submitted. Deficiencies detected by such review shall be corrected by the permit holder prior to the beginning of construction. Failure to submit the certification or failure to make required corrections shall be cause to deny a floodplain development permit.

b. An Elevation Certificate (FEMA Form FF-206-FY22-152) is required after the reference level is established. Within seven (7) calendar days of establishment of the reference level elevation, it shall be the duty of the permit holder to submit to the Floodplain Administrator a certification of the elevation of the reference level, in relation to NAVD 1988. Any work done within the seven (7)-day calendar period and prior to submission of the certification shall be at the permit holder's risk. The Floodplain Administrator shall review the certificate data submitted. Deficiencies detected by such review shall be corrected by the permit holder immediately and prior to further work being permitted to proceed. Failure to submit the certification or failure to make required corrections shall be cause to issue a stop-work order for the project.

c. A final Finished Construction Elevation Certificate (FEMA Form FF-206-fy22-152) is required after construction is completed and prior to Certificate of Compliance/Occupancy issuance. It shall be the duty of the permit holder to submit to the Floodplain Administrator a certification of final as-built

Commented [WF40]: The correct form is (FEMA Form FF-206-FY 22-152)

Commented [BAF41R40]: revised

Commented [WF42]: The correct form is (FEMA Form FF-206-FY 22-152).

Commented [BAF43R42]: revised

Commented [WF44R42]: Bonnie the highlighted section needs to be "B" and the "B" will be come "C". I think when you changed the Form # it deleted it. This is actually 3 required Ecs.

Commented [BAF45R42]: revised

Commented [WF46]: The correct form is (FEMA Form FF-206-FY 22-152).

Commented [BAF47R46]: revised

construction of the elevation of the reference level and all attendant utilities. The Floodplain Administrator shall review the certificate data submitted. Deficiencies detected by such review shall be corrected by the permit holder immediately and prior to Certificate of Compliance/Occupancy issuance. In some instances, another certification may be required to certify corrected as-built construction. Failure to submit the certification or failure to make required corrections shall be cause to withhold the issuance of a Certificate of Compliance/Occupancy. The Finished Construction Elevation Certificate certifier shall provide at least two (2) photographs showing the front and rear of the building taken within ninety (90) days from the date of certification. The photographs must be taken with views confirming the building description and diagram number provided in (A). To the extent possible, these photographs should show the entire building including foundation. If the building has split-level or multi-level areas, provide at least two (2) additional photographs showing side views of the building. In addition, when applicable, provide a photograph of the foundation showing a representative example of the flood openings or vents. All photographs must be in color and measure at least three (3) inches by three (3) inches. Digital photographs are acceptable.

2. Floodproofing Certificate

- a. If non-residential floodproofing is used to meet the Regulatory Flood Protection Elevation requirements, a Floodproofing Certificate (FEMA Form FF-206-FY22-153), with supporting data, an operational plan, and an inspection and maintenance plan are required prior to the actual start of any new construction. It shall be the duty of the permit holder to submit to the Floodplain Administrator a certification of the floodproofed design elevation of the reference level and all attendant utilities, in relation to NAVD 1988. Floodproofing certification shall be prepared by or under the direct supervision of a licensed professional engineer or a licensed architect and certified by same. The Floodplain Administrator shall review the certificate data, the operational plan, and the inspection and maintenance plan. Deficiencies detected by such review shall be corrected by the applicant prior to permit approval. Failure to submit the certification or failure to make required corrections shall be cause to deny a Floodplain Development Permit. Failure to construct in accordance with the certified design shall be cause to withhold the issuance of a Certificate of Compliance/Occupancy.
- b. A final Finished Construction Floodproofing Certificate (FEMA Form FF-206-fy22-153), with supporting data, an operational plan, and an inspection and maintenance plan are required prior to the issuance of a Certificate of Compliance/Occupancy. It shall be the duty of the permit holder to submit to the Floodplain Administrator a certification of the floodproofed design elevation of the reference level and all attendant utilities, in relation to NAVD 1988. Floodproofing certificate shall be prepared by or under the direct supervision of a professional engineer or architect and certified by same. The Floodplain Administrator shall review the certificate data, the operational plan, and the inspection and maintenance plan. Deficiencies detected by such review shall be corrected by the applicant prior to Certificate of Occupancy. Failure to submit the certification or failure to make required corrections shall

Commented [WF48]: The correct form is (FEMA Form FF-206-FY 22-153).

Commented [BAF49R48]: revised

Commented [WF50]: The correct form is (FEMA Form FF-206-FY 22-153).

Commented [BAF51R50]: revised

be cause to deny a Floodplain Development Permit. Failure to construct in accordance with the certified design shall be cause to deny a Certificate of Compliance/Occupancy.

3. Manufactured homes. If a manufactured home is placed within Zones A, AE, AH, AO, A99 and the elevation of the chassis is more than 36 inches in height above grade, an engineered foundation certification is required per (E)(2)(c) provisions for flood hazard reduction, specific standards, manufactured homes.

4. Watercourses. If a watercourse is to be altered or relocated, a description of the extent of watercourse alteration or relocation; a professional engineer's certified report on the effects of the proposed project on the flood-carrying capacity of the watercourse and the effects to properties located both upstream and downstream; and a map showing the location of the proposed watercourse alteration or relocation shall all be submitted by the permit applicant prior to issuance of a floodplain development permit.

5. Certification Exemptions. The following structures, if located within Zones A, AE, AH, AO, A99, are exempt from the elevation/floodproofing certification requirements specified in (D)(2)(a) and (D)(2)(b) of this section: (E)(3)(f) recreational vehicles per Provisions for flood hazard reduction, specific standards, recreational vehicles below. Temporary placement and temporary structures per (E)(2)(g) Provisions for flood hazard reduction, specific standards, temporary non-residential structures below; and accessory structures less than 150 square feet meeting requirements of (E)(3)(h) provisions for flood hazard reduction, specific standards, accessory structures below; and accessory structures that are 150 square feet or less or \$5,000 or less and meeting requirements of (E)(2)(h) provisions for flood hazard reduction, specific standards, accessory structures below.

(d) Determinations for existing buildings and structures. For applications for building permits to improve buildings and structures, including alterations, movement, enlargement, replacement, repair, change of occupancy, additions, rehabilitations, renovations, substantial improvements, repairs of substantial damage, and any other improvement of or work on such buildings and structures, the Floodplain Administrator, in coordination with the Building Official, shall:

1. Estimate the market value, or require the applicant to obtain an appraisal of the market value prepared by a qualified independent appraiser, of the building or structure before the start of construction of the proposed work; in the case of repair, the market value of the building or structure shall be the market value before the damage occurred and before any repairs are made;

2. Compare the cost to perform the improvement, the cost to repair a damaged building to its pre-damaged condition, or the combined costs of improvements and repairs, if applicable, to the market value of the building or structure;

3. Determine and document whether the proposed work constitutes substantial improvement or repair of substantial damage; and

4. Notify the applicant if it is determined that the work constitutes substantial improvement or repair of substantial damage and that compliance with the flood resistant construction requirements of the NC Building Code and this ordinance is required.

(3) Duties and responsibilities of the Floodplain Administrator. The Floodplain Administrator or their designee shall perform, but not be limited to, the following duties:

(a) Review all floodplain development applications and issue permits for all proposed development within Special Flood Hazard Areas to assure that the requirements of this ordinance have been satisfied.

(b) Review all proposed development within Special Flood Hazard Areas to assure that all necessary local, state and federal permits have been received, including Section 404 of the Federal Water Pollution Control Act Amendments of 1972, 33 U.S.C. 1334.

(c) Notify adjacent communities and the North Carolina Department of Public Safety, Division of Emergency Management, State Coordinator for the National Flood Insurance Program prior to any alteration or relocation of a watercourse and submit evidence of such notification to the Federal Emergency Management Agency (FEMA).

(d) Assure that maintenance is provided within the altered or relocated portion of said watercourse so that the flood-carrying capacity is maintained.

(e) Prevent encroachments into floodways and non-encroachment areas unless the certification and flood hazard reduction provisions of division (E)(6) are met.

(f) Obtain actual elevation (in relation to NAVD 1988) of the reference level including basement) and all attendant utilities of all new and substantially improved structures, per (D)(2)(c) administration, certification requirements, certification requirements above.

(g) Obtain actual elevation (in relation to NAVD 1988) to which all new and substantially improved structures and utilities have been floodproofed, in accordance with the provisions of (D)(2)(c) administration, requirements, certification requirements above.

(h) Obtain actual elevation (in relation to NAVD 1988) of all public utilities in accordance with the provisions of (D)(2)(c) administration, requirements, certification requirements above.

(i) When floodproofing is utilized for a particular structure, obtain certifications from a licensed professional engineer or licensed architect in accordance with the provisions of (D)(2)(c) administration, requirements, certification requirements above and (E)(2)(b) provisions for flood hazard reduction, specific standards, non-residential construction below.

(j) Where interpretation is needed as to the exact location of boundaries of the Special Flood Hazard Areas, floodways, or non-encroachment areas for example, where there appears to be a conflict between a mapped boundary and actual field conditions), make the necessary interpretation. The person contesting the location of the boundary shall be given a reasonable opportunity to appeal the interpretation as provided in this section.

(k) When Base Flood Elevation (BFE) data have not been provided in accordance with the provisions of division (C)(2), obtain, review, and reasonably utilize any BFE data, along with floodway data or non-encroachment area data available from a federal, state, or other source, including data developed pursuant to (E)(4) provisions for flood hazard reduction, standards for floodplains without established base flood elevations below and (C)(2) general provisions, Special Flood Hazard Areas above in order to administer the provisions of this ordinance.

(l) When Base Flood Elevation (BFE) data are provided but no floodway or non-encroachment area data have been provided per (C)(2) general provisions, Special Flood Hazard Areas above, obtain, review, and reasonably utilize any floodway data or non-encroachment area data available from a federal, state, or other source in order to administer the provisions of this ordinance.

(m) When the lowest floor and the lowest adjacent grade of a structure or the lowest ground elevation of a parcel in a Special Flood Hazard Areas are above the Base Flood Elevation (BFE), advise the property owner of the option to apply for a Letter of Map Amendment (LOMA) from the North Carolina Division of Emergency Management. Maintain a copy of the LOMA issued by the North Carolina Division of Emergency Management in the floodplain development permit file.

(n) Permanently maintain all records that pertain to the administration of this ordinance and make these records available for public inspection, recognizing that such information may be subject to the Privacy Act of 1974, as amended.

(o) Make on-site inspections of work in progress. As the work pursuant to a floodplain development permit progresses, the Floodplain Administrator shall make as many inspections of the work as may be necessary to ensure that the work is being done according to the provisions of the local ordinance and the terms of the permit. In exercising this power, the Floodplain Administrator has a right, upon presentation of proper credentials, to enter on any premises within the jurisdiction of the community at any reasonable hour for the purposes of inspection or other enforcement action.

(p) Issue stop-work orders as required. Whenever a building or part thereof is being constructed, reconstructed, altered, or repaired in violation of this ordinance, the Floodplain Administrator may order the work to be immediately stopped. The stop-work order shall be in writing and directed to the person doing or in charge of the work. The stop-work order shall state the specific work to be stopped, the specific reason(s) for the stoppage, and the condition(s) under which the work may be resumed. Violation of a stop-work order constitutes a misdemeanor.

(q) Revoke floodplain development permits as required. The Floodplain Administrator may revoke and require the return of the floodplain development permit by notifying the permit holder in writing stating the reason(s) for the revocation. Permits shall be revoked for any substantial departure from the approved application, plans, and specifications; for refusal or failure to comply with the requirements of state or local laws; or for false statements or misrepresentations made in securing the permit. Any floodplain development permit mistakenly issued in violation of an applicable State or local law may also be revoked.

(r) Make periodic inspections throughout the Special Flood Hazard Areas within the jurisdiction of the community. The Floodplain Administrator and each member of his or her inspections department shall have a right, upon presentation of proper credentials, to enter on any premises within the territorial jurisdiction of the department at any reasonable hour for the purposes of inspection or other enforcement action.

(s) Follow through with corrective procedures of (D)(4) administration, corrective procedures below.

(t) Review, provide input, and make recommendations for variance requests.

(u) Maintain a current map repository to include, but not limited to, the FIS Report, FIRM and other official flood maps and studies adopted per (C)(2) general provisions, special flood hazard areas above, including any revisions thereto including Letters of Map Change, issued by the North Carolina Division of Emergency Management. Notify State and North Carolina Division of Emergency Management of mapping needs.

(v) Coordinate revisions to FIS reports and FIRMs, including Letters of Map Revision Based on Fill (LOMR-Fs) and Letters of Map Revision (LOMRs).

(4) Corrective procedures.

(a) Violations to be corrected. When the Floodplain Administrator finds violations of applicable State and local laws; it shall be his or her duty to notify the owner or occupant of the building of the violation. The owner or occupant shall immediately remedy each of the violations of law cited in such notification.

(b) Actions in Event of Failure to Take Corrective Action: If the owner of a building or property shall fail to take prompt corrective action, the Floodplain Administrator shall give the owner written notice, by certified or registered mail to the owner's last known address or by personal service, stating:

1. That the building or property is in violation of the floodplain management regulations;
2. That a hearing will be held before the Floodplain Administrator at a designated place and time, not later than ten days after the date of the notice, at which time the owner shall be entitled to be heard in person or by counsel and to present arguments and evidence pertaining to the matter; and
3. That following the hearing, the Floodplain Administrator may issue an order to alter, vacate, or demolish the building; or to remove fill as applicable.

(c) Order to take corrective action. If, upon a hearing held pursuant to the notice prescribed above, the Floodplain Administrator shall find that the building or development is in violation of the Flood Damage Prevention Ordinance, he or she shall issue an order in writing to the owner, requiring the owner to remedy the violation within a specified time period, not less than sixty (60) calendar days, nor more than one hundred and eighty (180) calendar days. Where the Floodplain Administrator finds that there is imminent danger to life or other property, he or she may order that corrective action be taken in such lesser period as may be feasible.

(d) Appeal. Any owner who has received an order to take corrective action may appeal the order to the local elected governing body by giving notice of appeal in writing to the Floodplain Administrator and the clerk within ten days following issuance of the final order. In the absence of an appeal, the order of the Floodplain Administrator shall be final. The local governing body shall hear an appeal within a reasonable time and may affirm, modify and affirm, or revoke the order.

(e) Failure to comply with order. If the owner of a building or property fails to comply with an order to take corrective action for which no appeal has been made or fails to comply with

an order of the governing body following an appeal, the owner shall be guilty of a Class 1 misdemeanor pursuant to G.S. § 143-215.58 and shall be punished at the discretion of the court.

(5) Variance procedures.

(a) The Board of Adjustment as established by the City of Monroe, hereinafter referred to as the “appeal board”, shall hear and decide requests for variances from the requirements of this ordinance.

(b) Any person aggrieved by the decision of the appeal board may appeal such decision to the Court, as provided in G.S. Ch. 7A.

(c) Variances may be issued for:

1. The repair or rehabilitation of historic structures upon the determination that the proposed repair or rehabilitation will not preclude the structure’s continued designation as a historic structure and that the variance is the minimum necessary to preserve the historic character and design of the structure;

2. Functionally dependent facilities if determined to meet the definition as stated in (B) definitions of this ordinance, provided provisions of (D)(5) administration, variance procedures have been satisfied, and such facilities are protected by methods that minimize flood damages during the base flood and create no additional threats to public safety; or

3. Any other type of development, provided it meets the requirements of this section.

(d) In passing upon variances, the appeal board shall consider all technical evaluations, all relevant factors, all standards specified in other sections of this ordinance, and:

1. The danger that materials may be swept onto other lands to the injury of others;

2. The danger to life and property due to flooding or erosion damage;

3. The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner;

4. The importance of the services provided by the proposed facility to the community;

5. The necessity to the facility of a waterfront location as defined under division (B) of this ordinance as a functionally dependent facility, where applicable;

6. The availability of alternative locations, not subject to flooding or erosion damage, for the proposed use;

7. The compatibility of the proposed use with existing and anticipated development;

8. The relationship of the proposed use to the comprehensive plan and floodplain management program for that area;

9. The safety of access to the property in times of flood for ordinary and emergency vehicles;

10. The expected heights, velocity, duration, rate of rise, and sediment transport of the floodwaters and the effects of wave action, if applicable, expected at the site; and

11. The costs of providing governmental services during and after flood conditions including maintenance and repair of public utilities and facilities such as sewer, gas, electrical and water systems, and streets and bridges.

(e) A written report addressing each of the above factors shall be submitted with the application for a variance.

(f) Upon consideration of the factors listed above and the purposes of this ordinance, the appeal board may attach such conditions to the granting of variances as it deems necessary to further the purposes and objectives of this ordinance.

(g) Any applicant to whom a variance is granted shall be given written notice specifying the difference between the Base Flood Elevation (BFE) and the elevation to which the structure is to be built and that such construction below the BFE increases risks to life and property, and that the issuance of a variance to construct a structure below the BFE may result in increased premium rates for flood insurance up to \$25 per \$100 of insurance coverage. Such notification shall be maintained with a record of all variance actions, including justification for their issuance.

(h) The Floodplain Administrator shall maintain the records of all appeal actions and report any variances to the Federal Emergency Management Agency and the State of North Carolina upon request.

(i) Conditions for variances:

1. Variances shall not be issued when the variance will make the structure in violation of other federal, state, or local laws, regulations, or ordinances.

2. Variances shall not be issued within any designated floodway or non-encroachment area if the variance would result in any increase in flood levels during the base flood discharge.

3. Variances shall only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief.

4. Variances shall only be issued prior to development permit approval.

5. Variances shall only be issued upon:

a. A showing of good and sufficient cause;

b. A determination that failure to grant the variance would result in exceptional hardship; and

c. A determination that the granting of a variance will not result in increased flood heights, additional threats to public safety, or extraordinary public expense, create nuisance, cause fraud on or victimization of the public, or conflict with existing local laws or ordinances.

(j) A variance may be issued for solid waste disposal facilities or sites, hazardous waste management facilities, salvage yards, and chemical storage facilities that are located in Special Flood Hazard Areas provided that all of the following conditions are met.

1. The use serves a critical need in the community.
2. No feasible location exists for the use outside the Special Flood Hazard Areas.
3. The reference level of any structure is elevated or floodproofed to at least the Regulatory Flood Protection Elevation.
4. The use complies with all other applicable federal, state and local laws.
5. The City of Monroe has notified the Secretary of the North Carolina Department of Public Safety of its intention to grant a variance at least thirty (30) calendar days prior to granting the variance.

(E) Provisions for flood hazard reduction.

(1) General standards.

In all Special Flood Hazard Areas the following provisions are required:

- (a) All new construction and substantial improvements shall be designed (or modified) and adequately anchored to prevent flotation, collapse, and lateral movement of the structure.
- (b) All new construction and substantial improvements shall be constructed with materials and utility equipment resistant to flood damage in accordance with the FEMA Technical Bulletin 2, Flood Damage-Resistant Materials Requirements.
- (c) All new construction and substantial improvements shall be constructed by methods and practices that minimize flood damages.
- (d) All new electrical, heating, ventilation, plumbing, air conditioning equipment, and other service facilities shall be designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding to the regulatory flood protection elevation. These include, but are not limited to, HVAC equipment, water softener units, bath/kitchen fixtures, ductwork, electric/gas meter panels/boxes, utility/cable boxes, hot water heaters, and electric outlets/switches.
 1. Replacement part of a substantial improvement, electrical, heating, ventilation, plumbing, air conditioning equipment, and other service equipment shall also meet the above provisions.

Commented [TS52]: How will these be determined? Engineer certification? Staff review?

Commented [BAF53R52]: Engineer of record certification with City review and approval

2. Replacements that are for maintenance and not part of a substantial improvement, may be installed at the original location provided the addition and/or improvements only comply with the standards for new construction consistent with the code and requirements for the original structure.

(e) All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of floodwaters into the system.

(f) New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of floodwaters into the systems and discharges from the systems into floodwaters.

(g) On-site waste disposal systems shall be located and constructed to avoid impairment to them or contamination from them during flooding.

(h) Nothing in this ordinance shall prevent the repair, reconstruction, or replacement of a building or structure existing (2) Specific standards.

In all special flood hazard areas where Base Flood Elevation (BFE) data have been provided, as set forth per (C)(2) general provisions, special flood hazard areas above or (D)(4) administration, corrective procedures, the following provisions, in addition to the provisions of (E)(1) provisions for flood hazard reduction, general standards above, are required:

(a) Residential construction. New construction and substantial improvement of any residential structure (including manufactured homes) shall have the reference level, including basement, elevated no lower than the Regulatory Flood Protection Elevation, as defined in this section.

(b) Non-residential construction. New construction and substantial improvement of any commercial, industrial, or other non-residential structure shall have the reference level, including basement, elevated no lower than the Regulatory Flood Protection Elevation, as defined in (B) definitions, of this section. Structures located in A, AE, AO, AH, and A1-30 Zones may be floodproofed to the regulatory flood protection elevation in lieu of elevation provided that all areas of the structure, together with attendant utility and sanitary facilities, below the regulatory flood protection elevation are watertight with walls substantially impermeable to the passage of water, using structural components having the capability of resisting hydrostatic and hydrodynamic loads and the effect of buoyancy. For AO Zones, the floodproofing elevation shall be in accordance with division (E)(6)(b). A registered professional engineer or architect shall certify that the floodproofing standards of this subsection are satisfied. Such certification shall be provided to the Floodplain Administrator as set forth (D)(2)(c) administration, requirements, certification requirements above, along with the operational plan and the inspection and maintenance plan.

(c) Manufactured homes.

1. New and replacement manufactured homes shall be elevated so that the reference level of the manufactured home is no lower than the Regulatory Flood Protection Elevation, as defined in this section.

2. Manufactured homes shall be securely anchored to an adequately anchored foundation to resist flotation, collapse, and lateral movement, either by certified engineered foundation system, or in accordance with the most current edition of the State of North Carolina Regulations for Manufactured Homes adopted by the Commissioner of Insurance pursuant to North Carolina G.S. § 143-143.15. Additionally, when the elevation would be met by an elevation of the chassis thirty-six (36) inches or less above the grade at the site, the chassis shall be supported by reinforced piers or engineered foundation. When the elevation of the chassis is above thirty-six (36) inches in height, an engineering certification is required.

3. All enclosures or skirting below the lowest floor shall meet the requirements of (E)(2)(d) provisions for flood hazard reduction, specific standards, elevated buildings.

4. An evacuation plan must be developed for evacuation of all residents of all new, substantially improved or substantially damaged manufactured home parks or subdivisions located within flood prone areas. This plan shall be filed with and approved by the Floodplain Administrator and the local Emergency Management Coordinator.

(d) Elevated buildings. Fully enclosed area, of new construction and substantially improved structures, which is below the lowest floor:

1. Shall not be designed or used for human habitation, but shall only be used for parking of vehicles, building access, or limited storage of maintenance equipment used in connection with the premises. Access to the enclosed area shall be the minimum necessary to allow for parking of vehicles (garage door) or limited storage of maintenance equipment (standard exterior door), or entry to the living area (stairway or elevator). The interior portion of such enclosed area shall not be finished or partitioned into separate rooms, except to enclose storage areas;

2. Shall not be temperature-controlled or conditioned.

3. Shall be constructed entirely of flood resistant materials at least to the Regulatory Flood Protection Elevation; and

4. Shall include flood openings to automatically equalize hydrostatic flood forces on walls by allowing for the entry and exit of floodwaters. To meet this requirement, the openings must either be certified by a professional engineer or architect or meet or exceed the following minimum design criteria:

a. A minimum of two (2) flood openings on different sides of each enclosed area subject to flooding;

b. The total net area of all flood openings must be at least one (1) square inch for each square foot of enclosed area subject to flooding;

c. If a building has more than one enclosed area, each enclosed area must have flood openings to allow floodwaters to automatically enter and exit;

d. The bottom of all required flood openings shall be no higher than one (1) foot above the adjacent grade;

e. Flood openings may be equipped with screens, louvers, or other coverings or devices, provided they permit the automatic flow of floodwaters in both directions; and

f. Enclosures made of flexible skirting are not considered enclosures for regulatory purposes, and, therefore, do not require flood openings. Masonry or wood underpinning, regardless of structural status, is considered an enclosure and requires flood openings as outlined above.

5. Property owners shall be required to execute and record a non-conversion agreement prior to issuance of a building permit declaring that the area below the lowest floor shall not be improved, finished or otherwise converted to habitable space. The City of Monroe will have the right to inspect the enclosed area and will conduct annual inspections to confirm compliance. This agreement shall be recorded with the Union Name County Register of Deeds and shall transfer with the property in perpetuity. Violation of the agreement is considered a violation of the ordinance and, therefore, subject to the same enforcement procedures and penalties. The agreement must be filed with the recorded deed for the property. The agreement must show the clerk's or recorder's stamps and/or notations that the filing has been completed.

Commented [BAF54]: #this section is missing from the current ordinance and is added as #5. Paragraph #6 is kept from the current ordinance. These two requirements go together

6. Release of restrictive covenant. If a property which is bound by a non-conversion agreement is modified to remove enclosed areas below BFE, then the owner may request release of restrictive covenant after staff inspection and submittal of confirming documentation.

Commented [TS55]: Appears regulatory and not definition

Copied the text from definitions to the "Elevated Buildings" section

Commented [TS56]: Restrictive Covenants may create property rights. Release of RC may require other landowners to join in.

Commented [BAF57R56]: The restrictive covenant would apply only to the owner of the structure that has the enclosed space below the BFE

Commented [WF58R56]: Agreed Bonnie, you are correct

Commented [59]: Does this apply to us do we have any non-conversion agreements? According to the Model, its optional, but if we include it here, we should add the term into the definitions. I've copied it below from the Model. DEFINITION HAS BEEN ADDED

"Non-Conversion Agreement" means a document stating that the owner will not convert or alter what has been constructed and approved. Violation of the agreement is considered a violation of the ordinance and, therefore, subject to the same enforcement procedures and penalties. The agreement must be filed with the recorded deed for the property. The agreement must show the clerk's or recorder's stamps and/or notations that the filing has been completed.

Commented [WF60R59]: If you are going to include the non conversion agreement language, then I would recommend going back and adding the definition in the definitions section.

Commented [BAF61R59]: Definition from the Model Ordinance has been added to the Definition section

Commented [62]: Model lists both pre-FIRM and post-FIRM here

Commented [BAF63R62]: added

Commented [BAF64]: This section does not match the Definition; definition section updated to reflect the 10-year period

(e) Additions/improvements.

1. Additions and/or improvements to pre-FIRM structures when the addition and/or improvements in combination with any interior modifications to the existing structure are:

a. Not a substantial improvement, the addition and/or improvements must be designed to minimize flood damages and must not be any more non-conforming than the existing structure.

b. A substantial improvement, with modifications/rehabilitations/improvements to the existing structure or the common wall is structurally modified more than installing a doorway, both the existing structure and the addition must comply with the standards for new construction.

2. Additions to pre-FIRM or post-FIRM structures with no modifications to the existing structure other than a standard door in the common wall shall require only the addition to comply with the standards for new construction.

3. Additions and/or improvements to post-FIRM structures when the addition and/or improvements in combination with any interior modifications to the existing structure are:

a. Not a substantial improvement, the addition and/or improvements only must comply with the standards for new construction.

b. A substantial improvement, the existing structure and the addition and/or improvements must comply with the standards for new construction.

4. Any combination of repair, reconstruction, rehabilitation, addition or improvement of a building or structure taking place during a ten-year period, the cumulative cost of which equals or exceeds 50% of the market value of the structure before the improvement or repair is started must comply with the standards for new construction. For each building or structure, the ten (10)-

year period begins on the date of the first improvement or repair of that building or structure subsequent to the effective date of this ordinance. Substantial damage also means flood-related damage sustained by a structure on two separate occasions during a ten-year period for which the cost of repairs at the time of each such flood event, on the average, equals or exceeds 25% of the market value of the structure before the damage occurred. If the structure has sustained substantial damage, any repairs are considered substantial improvement regardless of the actual repair work performed. The requirement does not, however, include either:

a. Any project for improvement of a building required to correct existing health, sanitary or safety code violations identified by the building official and that are the minimum necessary to assume safe living conditions.

b. Any alteration of a historic structure provided that the alteration will not preclude the structure's continued designation as a historic structure.

(f) Recreational vehicles. Recreational vehicles shall either:

1. Temporary placement: Be on site for fewer than 180 consecutive days and be fully licensed and ready for highway use (a recreational vehicle is ready for highway use if it is on its wheels or jacking system, is attached to the site only by quick disconnect type utilities, and has no permanently attached additions); or meet all the requirements for new construction.

2. Permanent placement. Recreational vehicles that do not meet the limitations of temporary placement shall meet all the requirements for new construction.

(g) Temporary non-residential structures. Prior to the issuance of a floodplain development permit for a temporary structure, the applicant must submit to the Floodplain Administrator a plan for the removal of such structure(s) in the event of a hurricane, flash flood or other type of flood warning notification. The following information shall be submitted in writing to the Floodplain Administrator for review and written approval:

1. A specified time period for which the temporary use will be permitted. Time specified may not exceed three months, renewable up to one (1) year;

2. The name, address, and phone number of the individual responsible for the removal of the temporary structure;

3. The time frame prior to the event at which a structure will be removed (i.e., minimum of 72 hours before landfall of a hurricane or immediately upon flood warning notification);

4. A copy of the contract or other suitable instrument with the entity responsible for physical removal of the structure; and

5. Designation, accompanied by documentation, of a location outside the Special Flood Hazard Areas, to which the temporary structure will be moved.

(h) Accessory structures. When accessory structures (sheds, detached garages, etc.) are to be placed within a Special Flood Hazard Areas, the following criteria shall be met:

1. Accessory structures shall not be used for human habitation including working, sleeping, living, cooking or restroom areas);

Commented [BAF65]: This section does not match the Definition. Definition section updated

Commented [WF66]: Bonnie this verbiage is optional but is required for policy holders to be eligible for Increased Cost of Compliance (ICC) benefits for repetitive loss.

Commented [BAF67R66]: Terry, we will keep in our ordinance for now; the City has a goal to improve CRS rating

Commented [WF68R66]: Bonnie, you are not currently in the Community Rating System (CRS), but this is necessary if property owners to be eligible for ICC benefits.

Commented [BAF69R66]: Acknowledged; no text changes made

2. Accessory structures shall not be temperature-controlled;
3. Accessory structures shall be designed to have low flood damage potential;
4. Accessory structures shall be constructed and placed on the building site so as to offer the minimum resistance to the flow of floodwaters;
5. Accessory structures shall be firmly anchored in accordance with the provisions of (E)(1)(a) provisions for flood hazard reduction, general standards, above;
6. All service facilities such as electrical shall be installed in accordance with the provisions of (E)(1)(d) provisions for flood hazard reduction, general standards, above;
7. Flood openings to facilitate automatic equalization of hydrostatic flood forces shall be provided below regulatory flood protection elevation in conformance with the provisions of (E)(2)(d)4. provisions for flood hazard reduction, specific standards, elevated buildings, above;
8. An accessory structure with a footprint less than 150 square feet that satisfies the criteria outlined above does not require an elevation or floodproofing certificate. Elevation or floodproofing certifications are required for all other accessory structures in accordance with division (D)(2)(c);
9. An accessory structure with a footprint less than 150 square feet or that is a minimal investment of \$3,000 or less and satisfies the criteria outlined above is not required to meet the elevation or floodproofing standards of (E)(2)(b) provisions for Flood hazard reduction, specific standards, non-residential construction above. Elevation or floodproofing certifications are required for all other accessory structures in accordance with (D)(2)(c) administration, requirements, certification requirements above.
 - (i) Tanks. When gas and liquid storage tanks are to be placed within a Special Flood Hazard Areas, the following criteria shall be met:
 1. Underground tanks. Underground tanks in flood hazard areas shall be anchored to prevent flotation, collapse or lateral movement resulting from hydrodynamic and hydrostatic loads during conditions of the design flood, including the effects of buoyancy assuming the tank is empty;
 2. Above ground tanks, elevated. Above-ground tanks in flood hazard areas shall be elevated to or above the regulatory flood protection elevation on a supporting structure that is designed to prevent flotation, collapse or lateral movement during conditions of the design flood. Tank-supporting structures shall meet the foundation requirements of the applicable flood hazard area;
 3. Above ground tanks, not elevated. Above-ground tanks that do not meet the elevation requirements of this ordinance shall be permitted in flood hazard areas provided the tanks are designed, constructed, installed, and anchored to resist all flood-related and other loads, including the effects of buoyancy, during conditions of the design flood and without release of contents in the floodwaters or infiltration by floodwaters into the tanks. Tanks shall be designed, constructed,

installed, and anchored to resist the potential buoyant and other flood forces acting on an empty tank during design flood conditions;

4. Tanks, inlets and vents. Tank inlets, fill openings, outlets and vents shall be at or above the Regulatory Flood Protection Elevation or fitted with covers designed to prevent the inflow of floodwater or outflow of the contents of the tanks during conditions of the design flood; and anchored to prevent lateral movement resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy, during conditions of the design flood.

(j) Other development.

1. Fences in regulated floodways and NEAs that have the potential to block the passage of floodwaters, such as stockade fences and wire mesh fences, shall meet the limitations of (E)(6) provisions for flood hazard reduction, standards for areas of shallow flooding (Zone AO) below.

2. Retaining walls, sidewalks and driveways in regulated floodways and NEAs. Retaining walls and sidewalks and driveways that involve the placement of fill in regulated floodways shall meet the limitations of (E)(6) provisions for flood hazard reduction, standards for areas of shallow flooding (Zone AO) below.

3. Roads and watercourse crossings in regulated floodways and NEAs. Roads and watercourse crossings, including roads, bridges, culverts, low-water crossings and similar means for vehicles or pedestrians to travel from one side of a watercourse to the other side, that encroach into regulated floodways shall meet the limitations of (E)(6) provisions for flood hazard reduction, standards for areas of shallow flooding (Zone AO) below.

4. Commercial storage facilities are not considered "limited storage" as noted in this ordinance and shall be protected to the Regulatory Flood Protection Elevation as required for commercial structures.

(3) Reserved.

(4) Standards for floodplains without established base flood elevations.

Within the Special Flood Hazard Areas designated as Approximate Zone A and established in (C)(2) general provisions, Special Flood Hazard Areas above, where no Base Flood Elevation (BFE) data have been provided by FEMA, the following provisions, in addition to the provisions of (E)(1) provisions for flood hazard reduction, general standards above, shall apply:

(a) No encroachments, including fill, new construction, substantial improvements or new development shall be permitted within a distance of 20 feet each side from top of bank or five times the width of the stream, whichever is greater, unless certification with supporting technical data by a licensed professional engineer is provided demonstrating that such encroachments shall not result in any increase in flood levels during the occurrence of the base flood discharge.

(b) The BFE used in determining the regulatory flood protection elevation shall be determined based on the following criteria:

1. When Base Flood Elevation (BFE) data are available from other sources, all new construction and substantial improvements within such areas shall also comply with all applicable

provisions of this ordinance and shall be elevated or floodproofed in accordance with standards in (E)(1) provisions for flood hazard reduction, general standards and (E)(2) specific standards above.

2. When floodway or non-encroachment data are available from a federal, state, or other source, all new construction and substantial improvements within floodway and non-encroachment areas shall also comply with the requirements of (E)(2) provisions for flood hazard reduction, specific standards above and (E)(6) standards for areas of shallow flooding (Zone AO) below.

3. All subdivision, manufactured home park and other development proposals shall provide Base Flood Elevation (BFE) data if development is greater than five acres or has more than 50 lots/manufactured home sites. Such BFE data shall be adopted by reference per (C)(2) general provisions, special flood hazard areas above and utilized in implementing this ordinance.

4. When Base Flood Elevation (BFE) data are not available from a federal, state, or other source as outlined above, the reference level shall be elevated or floodproofed (non residential) to or above the regulatory flood protection elevation, as defined in (B) definitions. All other applicable provisions of division (E)(2) provisions for flood hazard reduction, specific standards above shall also apply.

(5) Standards for riverine floodplains with base flood elevations but without established floodways or non-encroachment areas.

Along rivers and streams where Base Flood Elevation (BFE) data is provided by FEMA or is available from another source but neither floodway nor non-encroachment areas are identified for a Special Flood Hazard Areas on the FIRM or in the FIS report, the following requirements shall apply to all development within such areas:

(a) Standards of (E)(1) provisions for flood hazard reduction, general standards and (E)(2) specific standards above; and

(b) Until a regulatory floodway or non-encroachment area is designated, no encroachments, including fill, new construction, substantial improvements, or other development, shall be permitted unless certification with supporting technical data by a licensed professional engineer is provided demonstrating that the cumulative effect of the proposed development, when combined with all other existing and anticipated development, will not increase the water surface elevation of the base flood more than one foot at any point within the community.

(6) Floodways and non-encroachment areas.

Areas, designated as floodways or non-encroachment areas are located within the Special Flood Hazard Areas established per (C)(2) general provisions, special flood hazard areas above. The floodways and non-encroachment areas are extremely hazardous areas due to the velocity of floodwaters that have erosion potential and carry debris and potential projectiles. The following provisions, in addition to the standards outlined in (E)(1) provisions for flood hazard reduction, general standards and (E)(2) specific standards, shall apply to all development within such areas:

(a) No encroachments, including fill, new construction, substantial improvements and other developments shall be permitted unless:

1. It is demonstrated that the proposed encroachment would not result in any increase in the flood levels during the occurrence of the base flood, based on hydrologic and hydraulic analyses performed in accordance with standard engineering practice and presented to the Floodplain Administrator prior to issuance of a floodplain development permit; or

2. A Conditional Letter of Map Revision (CLOMR) has been approved by the North Carolina Division of Emergency Management. A Letter of Map Revision (LOMR) must also be obtained upon completion of the proposed encroachment.

(b) If (E)(6) provisions for flood hazard reduction, standards for areas of shallow flooding (Zone AO) below is satisfied, all development shall comply with all applicable flood hazard reduction provisions of this ordinance.

(c) No manufactured homes shall be permitted, except replacement manufactured homes in an existing manufactured home park or subdivision, provided the following provisions are met:

1. The anchoring and the elevation standards of (E)(2)(c) provisions for flood hazard reduction, specific standards, manufactured homes below; and

2. The no encroachment standard of (E)(6)(c) provisions for flood hazard reduction, standards for areas of shallow flooding (Zone AO), below.

(7) Standards for areas of shallow flooding (Zone AO).

Located within the Special Flood Hazard Areas established in (C)(2) general provisions, special flood hazard areas above, are areas designated as shallow flooding areas. These areas have special flood hazards associated with base flood depths of one (1) to three (3) feet where a clearly defined channel does not exist and where the path of flooding is unpredictable and indeterminate. In addition to division (E)(1) provisions for flood hazard reduction, general standards and (E)(2) specific standards above, all new construction and substantial improvements shall meet the following requirements:

(a) The reference level shall be elevated at least as high as the depth number specified on the Flood Insurance Rate Map(FIRM), in feet, plus a freeboard of two (2)feet, above the highest adjacent grade; or at least two (2) feet above the highest adjacent grade if no depth number is specified.

(b) Non-residential structures may, in lieu of elevation, be floodproofed to the same level as required in (a) above so that the structure, together with attendant utility and sanitary facilities, below that level shall be watertight with walls substantially impermeable to the passage of water and with structural components having the capability of resisting hydrostatic and hydrodynamic loads and effects of buoyancy. Certification is required per (D)(2)(c) administration, requirements, certification requirements and (E)(2)(b) provisions for flood hazard reduction, specific standards, non-residential construction above.

(c) Adequate drainage paths shall be provided around structures on slopes, to guide floodwaters around and away from proposed structures.

(8) Standards for areas of shallow flooding (Zone AH).

Within the Special Flood Hazard Areas established in (C)(2) general provisions, special flood hazard areas above are areas designated as shallow flooding areas. These areas are subject to inundation by 1%-annual-chance shallow flooding (usually areas of ponding) where average depths are one to three feet. Base Flood Elevations are derived from detailed hydraulic analyses are shown in this zone. In addition to § 159.805(A) Boundaries of Floodplain and Floodway Districts, Boundaries, all new construction and substantial improvements shall meet the following requirements:

(a) Adequate drainage paths shall be provided around structures on slopes, to guide floodwaters around and away from proposed structures.

(F) Legal status provisions.

(1) Effect on rights and liabilities under the existing Flood Damage Prevention Ordinance. This ordinance in part comes forward by re-enactment of some of the provisions of the Flood Damage Prevention Ordinance enacted December 16, 2003 as amended, and it is not the intention to repeal but rather to re-enact and continue to enforce without interruption of such existing provisions, so that all rights and liabilities that have accrued thereunder are reserved and may be enforced. The enactment of this ordinance shall not affect any action, suit or proceeding instituted or pending. All provisions of the Flood Damage Prevention Ordinance of the City of Monroe enacted on December 16, 2003, as amended, which are not reenacted herein are repealed. The date of the initial Flood Damage Prevention Ordinance for Union County is December 16, 2003.

(2) Effect upon outstanding floodplain development permits. Nothing herein contained shall require any change in the plans, construction, size, or designated use of any development or any part thereof for which a floodplain development permit has been granted by the Floodplain Administrator or his or her authorized agents before the time of passage of this ordinance; provided, however, that when construction is not begun under such outstanding permit within a period of six (6) months subsequent to the date of issuance of the outstanding permit, construction or use shall be in conformity with the provisions of this ordinance

(3) Severability. If any section, clause, sentence, or phrase of the ordinance is held to be invalid or unconstitutional by any court of competent jurisdiction, then said holding shall in no way effect the validity of the remaining portions of this ordinance.

(4) Effective date. This ordinance shall become effective upon adoption.

(5) Adoption Certification.

I hereby certify that this is a true and correct copy of the Flood Damage Prevention Ordinance as adopted by the governing body of Monroe, North Carolina, on the Day (number or text) day of Month, Year.

WITNESS my hand and the official seal of insert Name, Title, this the Day (number or text) day of Month, Year.

(signature)

156.802 FLOODPLAIN AND FLOODWAY DISTRICTS.

Generally, the floodplain and floodway districts are hereby established as “overlay” districts, meaning that these districts are overlaid upon other districts and the land, so encumbered, may be used in a manner permitted in the underlying district only if and to the extent such use is also permitted in the applicable overlay district. Refer to Section 156.801 “Flood Damage Prevention Ordinance” for requirements for development within the floodplain and floodway.

Commented [BAF70]: Formerly Stormwater Ordinance Section 159.801

Commented [BAF71]: Sections 156-802 thru 156-805 have been removed from the stormwater management ordinance and made a part of this new “Floodplain Regulations” Ordinance.

156.803 OBSTRUCTIONS.

(A) Standard. No artificial obstruction may be located within any floodway.

(B) Definition. For purposes of this subchapter, an artificial obstruction is any obstruction, other than a natural obstruction, that is capable of reducing the flood carrying capacity of a stream or may accumulate debris and thereby reduce the flood-carrying capacity of a stream. A natural obstruction includes any rock, tree, gravel, or analogous natural matter that is an obstruction and has been located within the floodway by a nonhuman cause.

Commented [BAF72]: Formerly Stormwater Ordinance Section 159.802

156.804 FLOODPLAIN SUBDIVISION PROVISIONS.

(A) Notice. An applicant for a planned district authorizing a major subdivision and an applicant for minor subdivision final plat approval shall be informed by the planning department of the use and construction restrictions of any portion of the land to be subdivided if it lies within a floodway or floodplain.

(B) Plat. Final plat approval for any subdivision containing land that lies within a floodway or floodplain may not be given unless the plat shows the boundary of the floodway or floodplain and contains in clearly discernible print the following statement: “Use of land within a floodplain is substantially restricted by Chapter 156: Floodplain Regulations in the Monroe Code of Ordinances.”

Commented [BAF73]: Formerly Stormwater ordinance Section 159.804

156.805 BOUNDARIES OF FLOODPLAIN AND FLOODWAY DISTRICTS.

(A) Boundaries. As used in this subsection, the terms floodplain and floodway refer in the first instance to certain areas whose boundaries are determined and can be located on the ground by reference to the specific fluvial characteristics set forth the definition of these terms. These terms also refer to overlay zoning districts whose boundaries are established on the map, which boundaries are intended to correspond to the actual physical location of floodways and floodplains. These overlay districts thus differ from other zoning districts whose boundaries are established solely according to planning or policy, rather than physical criteria. Therefore, the City Floodplain Administrator is authorized to make necessary interpretations as to the exact location of the boundaries of the floodways or floodplains if there appears to be a conflict between a mapped boundary and actual field conditions. Such interpretations, like other decisions

Commented [WF74]: The use of plat and plot are not interchangeable. The final plat for the subdivision will or should show the boundaries but for floodplain it needs to be plot plan or site plan.

Commented [BAF75R74]: In this section 156.804, the reference to “plat” is the recorded instrument for subdividing the land.

Commented [BAF76]: Formerly Stormwater Ordinance Section 159.805

of the administrator, may be appealed to the Board of Adjustment in accordance with the applicable provisions of Chapter 157 Unified Development Ordinance.

(B) Maps. The Flood Insurance Rate Map Panels of properties within the corporate limits and extra territorial jurisdiction of the City of Monroe are identified by the Cooperating Technical State (CTS) agreement between the State of North Carolina and FEMA in its Flood Insurance Study (FIS) for Union County and the City of Monroe and may be viewed or downloaded from the North Carolina Flood Risk Information System (FRIS) website at <https://fris.nc.gov/>.

**ORDINANCE TO AMEND CITY OF MONROE CODE OF ORDINANCES
TITLE XV: LAND USAGE
CHAPTER 159: STORMWATER MANAGEMENT ORDINANCE AND TO
CREATE CHAPTER 156: FLOODPLAIN REGULATIONS
O-2025-23**

**BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF MONROE THAT
TITLE XV: LAND USAGE OF THE CITY OF MONROE CODE OF
ORDINANCES BE AMENDED AS FOLLOWS:**

Section 1. Delete Sections §159.801 through 159.805 FLOODPLAIN AND FLOODWAY DISTRICTS in their entirety and incorporate these regulations into a new **Chapter 156: FLOODPLAIN REGULATIONS.**

Section 2. Add **Chapter 156: FLOODPLAIN REGULATIONS** as follows:

***CHAPTER 156: FLOODPLAIN REGULATIONS:
FLOOD DAMAGE PREVENTION ORDINANCE, FLOODPLAIN AND FLOODWAY
DISTRICTS, AND SUBDIVISION PROVISIONS***

156.801 FLOOD DAMAGE PREVENTION ORDINANCE

(A) Statutory authorization, findings of fact, purpose and objectives.

(1) Statutory authorization. The Legislature of the State of North Carolina has in G.S. Part 6, Article 21 of Chapter 143; Article 6 of Chapter 153A; Article 8 of Chapter 160A; and Article 7, 9, and 11 of Chapter 160D delegated to local governmental units the authority to adopt regulations designed to promote the public health, safety, and general welfare. Therefore, the City Council of the City of Monroe, North Carolina, does ordain as follows:

(2) Findings of fact.

(a) The flood prone areas within the jurisdiction of Monroe are subject to periodic inundation which results in loss of life, property, health and safety hazards, disruption of commerce and governmental services, extraordinary public expenditures of flood protection and relief, and impairment of the tax base, all of which adversely affect the public health, safety, and general welfare.

(b) These flood losses are caused by the cumulative effect of obstructions in floodplains causing increases in flood heights and velocities and by the occupancy in flood prone areas of uses vulnerable to floods or other hazards.

(3) Statement of purpose. It is the purpose of this ordinance to promote public health, safety, and general welfare and to minimize public and private losses due to flood conditions within flood prone areas by provisions designed to:

- (a) Restrict or prohibit uses that are dangerous to health, safety, and property due to water or erosion hazards or that result in damaging increases in erosion, flood heights or velocities;
 - (b) Require that uses vulnerable to floods, including facilities that serve such uses, be protected against flood damage at the time of initial construction;
 - (c) Control the alteration of natural floodplains, stream channels, and natural protective barriers, which are involved in the accommodation of flood waters;
 - (d) Control filling, grading, dredging, and all other development that may increase erosion or flood damage; and
 - (e) Prevent or regulate the construction of flood barriers that will unnaturally divert flood waters or which may increase flood hazards to other lands.
- (4) Objectives. The objectives of this ordinance are to:
- (a) Protect human life, safety, and health;
 - (b) Minimize expenditure of public money for costly flood control projects;
 - (c) Minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;
 - (d) Minimize prolonged business losses and interruptions;
 - (e) Minimize damage to public facilities and utilities (i.e. water and gas mains, electric, telephone, cable and sewer lines, streets, and bridges) that are located in flood prone areas;
 - (f) Minimize damage to private and public property due to flooding;
 - (g) Make flood insurance available to the community through the National Flood Insurance Program;
 - (h) Maintain the natural and beneficial functions of floodplains;
 - (i) Help maintain a stable tax base by providing for the sound use and development of flood prone areas; and
 - (j) Ensure that potential buyers are aware that property is in a special flood hazard area.

(B) Definitions.

Unless specifically defined below, words or phrases used in this ordinance shall be interpreted so as to give them the meaning they have in common usage and to give this ordinance its most reasonable application.

ACCESSORY STRUCTURE (APPURTENANT STRUCTURE). A structure located on the same parcel of property as the principal structure and the use of which is incidental to the use of the principal structure. Garages, carports and storage sheds are common urban accessory structures. Pole barns, hay sheds and the like qualify as accessory structures on farms, and may or may not be located on the same parcel as the farm dwelling or shop building.

ADDITION (TO AN EXISTING BUILDING). An extension or increase in the floor area or height of a building or structure.

ALTERATION OF WATERCOURSE. A dam, impoundment, channel relocation, change in channel alignment, channelization, or change in cross-sectional area of the channel or the channel capacity, or any other form of modification which may alter, impede, retard or change the direction and/or velocity of the riverine flow of water during conditions of the base flood.

APPEAL. A request for a review of the Floodplain Administrator's interpretation of any provision of this ordinance.

AREA OF SHALLOW FLOODING. A designated Zone AO on a community's Flood Insurance Rate Map (FIRM) with base flood depths determined to be from one (1) to three (3) feet. These areas are located where a clearly defined channel does not exist, where the path of flooding is unpredictable and indeterminate, and where velocity flow may be evident.

AREA OF SPECIAL FLOOD HAZARD. See SPECIAL FLOOD HAZARD AREA (SFHA).

BASE FLOOD. The flood having a 1% chance of being equaled or exceeded in any given year.

BASE FLOOD ELEVATION (BFE). A determination of the water surface elevations of the base flood as published in the Flood Insurance Study. When the BFE has not been provided in a SPECIAL FLOOD HAZARD AREA, it may be obtained from engineering studies available from a federal, state, or other source using FEMA approved engineering methodologies. This elevation, when combined with the FREEBOARD, establishes the REGULATORY FLOOD PROTECTION ELEVATION.

BASEMENT. Any area of the building having its floor sub grade (below ground level) on all sides.

BUILDING. See STRUCTURE.

CERTIFIED LOCAL GOVERNMENT (CLG) PROGRAMS. Approved by the U.S. Department of the Interior in cooperation with the North Carolina Department of Cultural Resources through the State Historic Preservation Officer as having met the requirements of the National Historic Preservation Act of 1966 as amended in 1980.

CHEMICAL STORAGE FACILITY. A building, portion of a building, or exterior area adjacent to a building used for the storage of any chemical or chemically reactive products.

DESIGN FLOOD. See REGULATORY FLOOD PROTECTION ELEVATION.

DEVELOPMENT. Any man-made change to improved or unimproved real estate, including, but not limited to, buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations, or storage of equipment or materials.

DEVELOPMENT ACTIVITY. Means any activity defined as Development which will necessitate a FLOODPLAIN DEVELOPMENT PERMIT. This includes buildings, structures, and non-structural items, including (but not limited to) fill, bulkheads, piers, pools, docks, landings, ramps, and erosion control/stabilization measures.

DIGITAL FLOOD INSURANCE RATE MAP (DFIRM). Means the digital official map of a community, issued by the Federal Emergency Management Agency (FEMA), on which both the Special Flood Hazard Areas and the risk premium zones applicable to the community are delineated.

DISPOSAL. As defined in G.S. § 130A-290(a)(6), the discharge, deposit, injection, dumping, spilling, leaking, or placing of any solid waste into or on any land or water so that the solid waste or any constituent part of the solid waste may enter the environment or be emitted into the air or discharged into any waters, including groundwaters.

ELEVATED BUILDING. A non-basement building which has its lowest elevated floor raised above ground level by foundation walls, shear walls, posts, piers, pilings, or columns.

ENCROACHMENT. The advance or infringement of uses, fill, excavation, buildings, structures or development into a Special Flood Hazard Area, which may impede or alter the flow capacity of a floodplain.

EXISTING BUILDING AND EXISTING STRUCTURE. Any building and/or structure for which the START OF CONSTRUCTION commenced before the effective date of this ordinance.

EXISTING MANUFACTURED HOME PARK or MANUFACTURED HOME SUBDIVISION. A manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including, at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed before the effective date of this ordinance.

FLOOD or FLOODING. A general and temporary condition of partial or complete inundation of normally dry land areas from:

- (a) The overflow of inland or tidal waters; and/or
- (b) The unusual and rapid accumulation or runoff of surface waters from any source.

FLOOD BOUNDARY AND FLOODWAY MAP (FBFM). An official map of a community, issued by the Federal Emergency Management Agency, on which the special flood hazard areas and the floodways are delineated. This official map is a supplement to and shall be used in conjunction with the Flood Insurance Rate Map (FIRM).

FLOOD HAZARD BOUNDARY MAP (FHBM). An official map of a community, issued by the Federal Emergency Management Agency, where the boundaries of the special flood hazard areas have been defined as Zone A.

FLOOD INSURANCE. The insurance coverage provided under the National Flood Insurance Program.

FLOOD INSURANCE RATE MAP (FIRM). An official map of a community, issued by the Federal Emergency Management Agency, on which both the special flood hazard areas and the risk premium zones applicable to the community are delineated.

FLOOD INSURANCE STUDY (FIS). An examination, evaluation, and determination of flood hazards, corresponding water surface elevations (if appropriate), flood hazard risk zones, and other flood data in a community issued by the Federal Emergency Management Agency. The Flood Insurance Study report includes Flood Insurance Rate Maps (FIRMs) and Flood Boundary and Floodway Maps (FBFMs), if published.

FLOOD PRONE AREA. See FLOODPLAIN.

FLOOD ZONE. A geographical area shown on a Flood Hazard Boundary Map or Flood Insurance Rate Map that reflects the severity or type of flooding in the area.

FLOODPLAIN. Any land area susceptible to being inundated by water from any source.

FLOODPLAIN ADMINISTRATOR. The individual appointed to administer and enforce the floodplain management regulations.

FLOODPLAIN DEVELOPMENT PERMIT. Any type of permit that is required in conformance with the provisions of this ordinance, prior to the commencement of any development activity.

FLOODPLAIN MANAGEMENT. The operation of an overall program of corrective and preventive measures for reducing flood damage and preserving and enhancing, where possible, natural resources in the floodplain, including, but not limited to, emergency preparedness plans, flood control works, floodplain management regulations, and open space plans.

FLOODPLAIN MANAGEMENT REGULATIONS. This ordinance and other zoning ordinances, subdivision regulations, building codes, health regulations, special purpose ordinances, and other applications of police power. This term describes federal, state or local regulations, in any combination thereof, which provide standards for preventing and reducing flood loss and damage.

FLOODPROOFING. Any combination of structural and nonstructural additions, changes, or adjustments to structures which reduce or eliminate flood damage to real estate or improved real property, water and sanitation facilities, structures, and their contents.

FLOOD-RESISTANT MATERIAL. Means any building product [material, component or system] capable of withstanding direct and prolonged contact (minimum 72 hours) with floodwaters without sustaining damage that requires more than low-cost cosmetic repair. Any material that is water-soluble or is not resistant to alkali or acid in water, including normal adhesives for above-grade use, is not flood-resistant. Pressure-treated lumber or naturally decay-resistant lumbars are acceptable flooring materials. Sheet-type flooring coverings that restrict evaporation from below and materials that are impervious, but dimensionally unstable are not acceptable. Materials that absorb or retain water excessively after submergence are not flood-

resistant. Please refer to Technical Bulletin 2, Flood Damage-Resistant Materials Requirements, and available from the FEMA. Class 4 and 5 materials, referenced therein, are acceptable flood-resistant materials.

FLOODWAY. The channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than one (1) foot.

FLOODWAY ENCROACHMENT ANALYSIS. An engineering analysis of the impact that a proposed encroachment into a floodway or non-encroachment area is expected to have on the floodway boundaries and flood levels during the occurrence of the base flood discharge. The evaluation shall be prepared by a qualified North Carolina licensed engineer using standard engineering methods and hydraulic models meeting the minimum requirements of the National Flood Insurance Program.

FREEBOARD. The height added to the Base Flood Elevation (BFE) to account for the many unknown factors that could contribute to flood heights greater than the height calculated for a selected size flood and floodway conditions, such as wave action, blockage of bridge or culvert openings, precipitation exceeding the base flood, and the hydrological effect of urbanization of the watershed. The Base Flood Elevation (BFE) plus the freeboard establishes the **REGULATORY FLOOD PROTECTION ELEVATION**. The freeboard as defined by this Ordinance shall be two (2.0) feet.

FUNCTIONALLY DEPENDENT FACILITY. A facility which cannot be used for its intended purpose unless it is located in close proximity to water, limited to a docking or port facility necessary for the loading and unloading of cargo or passengers, shipbuilding, or ship repair. The term does not include long-term storage, manufacture, sales, or service facilities.

HAZARDOUS WASTE MANAGEMENT FACILITY. As defined in G.S. Chapter 130A, Art. 9, a facility for the collection, storage, processing, treatment, recycling, recovery, or disposal of hazardous waste.

HIGHEST ADJACENT GRADE (HAG). The highest natural elevation of the ground surface, prior to construction, immediately next to the proposed walls of the structure.

HISTORIC STRUCTURE. Any structure that is:

- (a) Listed individually in the National Register of Historic Places (a listing maintained by the U.S. Department of Interior) or preliminarily determined by the Secretary of Interior as meeting the requirements for individual listing on the National Register;
- (b) Certified or preliminarily determined by the Secretary of Interior as contributing to the historical significance of a registered historic district or a district preliminarily determined by the Secretary to qualify as a registered historic district;
- (c) Individually listed on a local inventory of historic landmarks in communities with a **CERTIFIED LOCAL GOVERNMENT (CLG) PROGRAM**; or
- (d) Certified as contributing to the historical significance of a historic district designated by a community with a **CERTIFIED LOCAL GOVERNMENT (CLG) PROGRAM**.

LETTER OF MAP CHANGE (LOMC). Means an official determination issued by FEMA that amends or revises an effective Flood Insurance Rate Map or Flood Insurance Study. Letters of Map Change include:

(a) LETTER OF MAP AMENDMENT (LOMA). An official amendment, by letter, to an effective National Flood Insurance Program map. A LOMA is based on technical data showing that a property had been inadvertently mapped as being in the floodplain but is actually on natural high ground above the base flood elevation. A LOMA amends the current effective Flood Insurance Rate Map and establishes that a specific property, portion of a property, or structure is not located in a special flood hazard area.

(b) LETTER OF MAP REVISION (LOMR). A revision based on technical data that may show changes to flood zones, flood elevations, special flood hazard area boundaries and floodway delineations, and other planimetric features.

(c) LETTER OF MAP REVISION BASED ON FILL (LOMR-F). A determination that a structure or parcel of land has been elevated by fill above the BFE and is, therefore, no longer located within the special flood hazard area. In order to qualify for this determination, the fill must have been permitted and placed in accordance with the community's floodplain management regulations

(d) CONDITIONAL LETTER OF MAP REVISION (CLOMR). A formal review and comment as to whether a proposed project complies with the minimum NFIP requirements for such projects with respect to delineation of Special Flood Hazard Areas. A CLOMR does not revise the effective Flood Insurance Rate Map or Flood Insurance Study; upon submission and approval of certified as-built documentation, a Letter of Map Revision may be issued by FEMA to revise the effective FIRM.

LIGHT DUTY TRUCK. Any motor vehicle rated at 8,500 pounds gross vehicular weight rating or less which has a vehicular curb weight of 6,000 pounds or less and which has a basic vehicle frontal area of 45 square feet or less as defined in 40 CFR 86.082-2 and is:

(a) Designed primarily for purposes of transportation of property or is a derivation of such a vehicle;

(b) Designed primarily for transportation of persons and has a capacity of more than 12 persons; or

(c) Available with special features enabling off-street or off-highway operation and use.

LOWEST ADJACENT GRADE (LAG). The lowest elevation of the ground, sidewalk or patio slab immediately next to the building, or deck support, after completion of the building.

LOWEST FLOOR. The lowest floor of the lowest enclosed area (including basement). An unfinished or flood resistant enclosure, usable solely for parking of vehicles, building access, or limited storage in an area other than a basement area is not considered a building's lowest floor, provided that such an enclosure is not built so as to render the structure in violation of the applicable non-elevation design requirements of this ordinance.

MANUFACTURED HOME. A structure, transportable in one or more sections, which is built on a permanent chassis and designed to be used with or without a permanent foundation when connected to the required utilities. The term MANUFACTURED HOME does not include a RECREATIONAL VEHICLE.

MANUFACTURED HOME PARK OR SUBDIVISION. A parcel (or contiguous parcels) of land divided into two or more manufactured home lots for rent or sale.

MAP REPOSITORY. Means the location of the official flood hazard data to be applied for floodplain management. It is a central location in which flood data is stored and managed; in North Carolina, FEMA has recognized that the application of digital flood hazard data products carries the same authority as hard copy products. Therefore, the NCEM's Floodplain Mapping Program websites house current and historical flood hazard data. For effective flood hazard data the NC FRIS website (<http://FRIS.NC.GOV/FRIS>) is the map repository, and for historical flood hazard data the FloodNC website (<http://FLOODNC.GOV/NCFLOOD>) is the map repository.

MARKET VALUE. The building value, not including the land value and that of any accessory structures or other improvements on the lot. Market value may be established by independent certified appraisal; replacement cost depreciated for age of building and quality of construction (actual cash value); or adjusted tax assessed values.

NEW CONSTRUCTION. Structures for which the "start of construction" commenced on or after the effective date of the initial floodplain management regulations and includes any subsequent improvements to such structures.

NON-CONVERSION AGREEMENT. A document stating that the owner will not convert or alter what has been constructed and approved. Violation of the agreement is considered a violation of the ordinance and, therefore, subject to the same enforcement procedures and penalties. The agreement must be filed with the recorded deed for the property. The agreement must show the clerk's or recorder's stamps and/or notations that the filing has been completed.

NON-ENCROACHMENT AREA (NEA). The channel of a river or other watercourse, including the area above a bridge or culvert when applicable, and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than one (1) foot as designated in the Flood Insurance Study report.

POST-FIRM. Means construction or other development for which the "start of construction" occurred on or after the effective date of the initial Flood Insurance Rate Map.

PRE-FIRM. Means construction or other development for which the "start of construction" occurred before the effective date of the initial Flood Insurance Rate Map.

PRINCIPALLY ABOVE GROUND. That at least 51% of the actual cash value of the structure is above ground.

RECREATIONAL VEHICLE (RV).

(a) A vehicle, which is:

1. Built on a single chassis;
2. Four hundred (400) square feet or less when measured at the largest horizontal projection;
3. Designed to be self-propelled or permanently towable by a light duty truck;

4. Designed primarily not for use as a permanent dwelling, but as temporary living quarters for recreational, camping, travel, or seasonal use; and

5. Is fully licensed and ready for highway use.

(b) For the purpose of this ordinance, “tiny homes/houses” and park models that do not meet the items listed above are not considered recreational vehicles and should meet the standards of and be permitted as residential structures.

REFERENCE LEVEL. The bottom of the lowest horizontal structural member of the lowest floor for structures within all Special Flood Hazard Areas.

REGULATORY FLOOD PROTECTION ELEVATION. The BASE FLOOD ELEVATION plus the FREEBOARD. In SPECIAL FLOOD HAZARD AREAS where Base Flood Elevations (BFEs) have been determined, this elevation shall be the BFE plus two feet of freeboard, as defined by this Ordinance. In SPECIAL FLOOD HAZARD AREAS where no BFE has been established, this elevation shall be at least two feet above the highest adjacent grade.

REMEDY A VIOLATION. To bring the structure or other development into compliance with state and community floodplain management regulations, or, if this is not possible, to reduce the impacts of its noncompliance. Ways that impacts may be reduced include protecting the structure or other affected development from flood damages, implementing the enforcement provisions of the ordinance or otherwise deterring future similar violations, or reducing federal financial exposure with regard to the structure or other development.

RIVERINE. Relating to, formed by, or resembling a river (including tributaries), stream, brook, etc.

SALVAGE YARD. Any non-residential property used for the storage, collection, and/or recycling of any type of equipment, and including but not limited to vehicles, appliances and related machinery.

SOLID WASTE DISPOSAL FACILITY. Any facility involved in the disposal of solid waste, as defined in G.S. § 130A-290(a)(35).

SOLID WASTE DISPOSAL SITE. As defined in G.S. § 130A-290(a)(36), any place at which solid wastes are disposed of by incineration, sanitary landfill, or any other method.

SPECIAL FLOOD HAZARD AREA (SFHA). The land in the floodplain subject to a 1% or greater chance of being flooded in any given year, as determined in division (C)(2) of this section.

START OF CONSTRUCTION. Includes substantial improvement, and means the date the building permit was issued, provided the actual start of construction, repair, reconstruction, rehabilitation, addition placement, or other improvement was within 180 days of the permit date. The actual start means either the first placement of permanent construction of a structure on a site, such as the pouring of slab or footings, the installation of piles, the construction of columns, or any work beyond the stage of excavation; or the placement of a manufactured home on a foundation. Permanent construction does not include land preparation, such as clearing, grading, and filling; nor does it include the installation of streets and/or walkways; nor does it include excavation for a basement, footings, piers, or foundations or the erection of temporary forms; nor

does it include the installation on the property of accessory buildings, such as garages or sheds not occupied as dwelling units or not part of the main structure. For a substantial improvement, the actual start of construction means the first alteration of any wall, ceiling, floor, or other structural part of the building, whether or not that alteration affects the external dimensions of the building.

STRUCTURE. A walled and roofed building, a manufactured home, or a gas, liquid, or liquefied gas storage tank that is principally above ground.

SUBSTANTIAL DAMAGE. Damage of any origin sustained by a structure during any ten-year period whereby the cost of restoring the structure to its before damaged condition would equal or exceed 50% of the market value of the structure before the damage occurred. See definition of “substantial improvement”. Substantial damage also means flood-related damage sustained by a structure on two separate occasions during a 10-year period for which the cost of repairs at the time of each such flood event, on the average, equals or exceeds 25 % of the market value of the structure before the damage occurred.

SUBSTANTIAL IMPROVEMENT. Any combination of repairs, reconstruction, rehabilitation, addition, or improvement of a building or structure, taking place during a ten-year period, the cumulative cost of which equals or exceeds 50% of the market value of the structure before the “start of construction” of the improvement. This term includes structures which have incurred “substantial damage”, regardless of the actual repair work performed. The term does not, however, include either:

(a) Any correction of existing violations of state or community health, sanitary, or safety code specifications which have been identified by the community code enforcement official and which are the minimum necessary to assure safe living conditions; or

(b) Any alteration of a historic structure, provided that the alteration will not preclude the structure’s continued designation as a historic structure.

TECHNICAL BULLETIN AND TECHNICAL FACT SHEET. Means a FEMA publication that provides guidance concerning the building performance standards of the NFIP, which are contained in Title 44 of the U. S. Code of Federal Regulations at Section 60.3. The bulletins and fact sheets are intended for use primarily by State and local officials responsible for interpreting and enforcing NFIP regulations and by members of the development community, such as design professionals and builders. New bulletins, as well as updates of existing bulletins, are issued periodically as needed. The bulletins do not create regulations; rather they provide specific guidance for complying with the minimum requirements of existing NFIP regulations. It should be noted that Technical Bulletins and Technical Fact Sheets provide guidance on the minimum requirements of the NFIP regulations. State or community requirements that exceed those of the NFIP take precedence. Design professionals should contact the community officials to determine whether more restrictive state or local regulations apply to the building or site in question. All applicable standards of the state or local building code must also be met for any building in a flood hazard area.

TEMPERATURE CONTROLLED. Having the temperature regulated by a heating and/or cooling system, built-in or appliance.

THREAT TO PUBLIC SAFETY and/or NUISANCE. Anything which is injurious to the safety or health of an entire community or neighborhood, or any considerable number of persons, or unlawfully obstructs the free passage or use, in the customary manner, of any navigable lake, or river, bay, stream, canal, or basin.

VARIANCE. The grant of relief from the requirements of this ordinance.

VIOLATION. The failure of a structure or other development to be fully compliant with the community's floodplain management regulations. A structure or other development without the elevation certificate, other certifications, or other evidence of compliance required in divisions (D) and (E) is presumed to be in violation until such time as that documentation is provided.

WATER SURFACE ELEVATION (WSE). The height, in relation to NAVD 1988, of floods of various magnitudes and frequencies in the floodplains of coastal or riverine areas.

WATERCOURSE. A lake, river, creek, stream, wash, channel or other topographic feature on or over which waters flow at least periodically. Watercourse includes specifically designated areas in which substantial flood.

(C) General provisions.

(1) **Applicability.** This ordinance shall apply to all Special Flood Hazard Areas within the jurisdiction, including extra-territorial jurisdictions, of the City of Monroe.

(2) **Basis for Establishing the Special Flood Hazard Areas.** The Special Flood Hazard Areas are those identified under the Cooperating Technical State (CTS) agreement between the State of North Carolina and FEMA in its Flood Insurance Study (FIS) dated October 16, 2008, shown on FIS for Union County and associated DFIRM panels, including any digital data developed as part of the FIS, which are adopted by reference and declared a part of this ordinance, and all revisions thereto.

(3) **Floodplain development permit.** A floodplain development permit shall be required in conformance with the provisions of this ordinance prior to the commencement of any development activities within Special Flood Hazard Areas determined per (C)(2) general provisions, special flood hazard areas above.

(4) **Compliance.** No structure or land shall hereafter be located, extended, converted, altered, or developed in any way without full compliance with the terms of this ordinance and other applicable regulations.

(5) **Abrogation and Greater Restrictions.** This ordinance is not intended to repeal, abrogate, or impair any existing easements, covenants, or deed restrictions. However, where this ordinance and another conflict or overlap, whichever imposes the more stringent restrictions shall prevail.

(6) **Interpretation.** In the interpretation and application of this ordinance, all provisions shall be:

- (a) Considered as minimum requirements;
- (b) Liberally construed in favor of the governing body; and

(c) Deemed neither to limit nor repeal any other powers granted under State statutes.

(7) Warning and Disclaimer of Liability. The degree of flood protection required by this ordinance is considered reasonable for regulatory purposes and is based on scientific and engineering consideration. Larger floods can and will occur. Actual flood heights may be increased by man-made or natural causes. This ordinance does not imply that land outside the Special Flood Hazard Areas or uses permitted within such areas will be free from flooding or flood damages. This ordinance shall not create liability on the part of the City of Monroe or by any officer or employee thereof for any flood damages that result from reliance on this ordinance or any administrative decision lawfully made hereunder.

(8) Penalties for violation. Violation of the provision of this ordinance or failure to comply with any of its requirements, including violation of conditions and safeguards established in connection with grants of variance or special exceptions, shall constitute a Class 1 misdemeanor pursuant to G.S. § 143-215.58. Any person who violates this ordinance or fails to comply with any of its requirements shall, upon conviction thereof, be fined not more than \$100 or imprisoned for not more than thirty (30) days, or both. Each day such violation continues shall be considered a separate offense. Nothing herein contained shall prevent the City of Monroe from taking such other lawful action as is necessary to prevent or remedy any violation. See Section (D)(4) for corrective procedures.

(D) Administration.

(1) Designation of Floodplain Administrator. The Stormwater Engineering Manager is hereby appointed to administer and implement the provisions of this ordinance as Floodplain Administrator. In instances where the Floodplain Administrator receives assistance from others to complete tasks to administer and implement this ordinance, the Floodplain Administrator shall be responsible for the coordination and community's overall compliance with the National Flood Insurance Program and the provisions of this ordinance.

(2) Floodplain Development Application, Permit and Certification Requirements.

(a) Application Requirements. Application for a Floodplain Development Permit shall be made to the Floodplain Administrator prior to any development activities located within Special Flood Hazard Areas. The following items shall be presented to the Floodplain Administrator to apply for a floodplain development permit:

1. A plot plan drawn to scale which shall include, but shall not be limited to, the following specific details of the proposed floodplain development:

a. The nature, location, dimensions, and elevations of the area of development/disturbance; existing and proposed structures, utility systems, grading/pavement areas, fill materials, storage areas, drainage facilities, and other development;

b. The boundary of the Special Flood Hazard Areas as delineated on the FIRM or other flood map as determined per (C)(2) general provisions, special flood hazard areas above, or a statement that the entire lot is within the special flood hazard area;

c. Flood zone(s) designation of the proposed development area as determined on the FIRM or other flood map as determined per (C)(2) general provisions, special flood hazard areas above;

d. The boundary of the floodway(s) or non-encroachment area(s) as determined per (C)(2), general provisions, special flood hazard areas above;

e. The Base Flood Elevation (BFE) where provided as set forth per (C)(2) general provisions, special flood hazard areas above; (D)(3) administration, duties and responsibilities of the Floodplain Administrator below; and (E)(4) provisions for flood hazard reduction, standards for floodplains without established base flood elevations below.

f. The old and new location of any watercourse that will be altered or relocated as a result of proposed development; and

g. The certification of the plot plan by a registered land surveyor or professional engineer.

2. Proposed elevation, and method thereof, of all development within a Special Flood Hazard Areas including but not limited to:

a. Elevation in relation to NAVD 1988 of the proposed reference level (including basement) of all structures;

b. Elevation in relation to NAVD 1988 to which any nonresidential structure in Zone AE, A, AH, A99, or AO will be floodproofed; and

c. Elevation in relation to NAVD 1988 to which any proposed utility systems will be elevated or floodproofed.

3. If floodproofing, a Floodproofing Certificate (FEMA Form FF-206-FY22-153) with supporting data, an operational plan, and an inspection and maintenance plan that include, but are not limited to, installation, exercise, and maintenance of floodproofing measure.

4. A Foundation Plan, drawn to scale, which shall include details of the proposed foundation system to ensure all provisions of this ordinance are met. These details include but are not limited to:

a. The proposed method of elevation, if applicable (i.e., fill, solid foundation perimeter walls, solid backfilled foundation, open foundation on columns/posts/piers/piles/shear walls); and

b. Openings to facilitate automatic equalization of hydrostatic flood forces on walls in accordance with this section, when solid foundation perimeter walls are used in Zones A, AE, AH, AO, A99.

5. Usage details of any enclosed areas below the lowest floor.

6. Plans and/or details for the protection of public utilities and facilities such as sewer, gas, electrical, and water systems to be located and constructed to minimize flood damage.

7. Certification that all other Local, State and Federal permits required prior to floodplain development permit issuance have been received.

8. Documentation for placement of Recreational Vehicles and/or Temporary Structures, when applicable, to ensure that the provisions of this ordinance are met.

9. A description of proposed watercourse alteration or relocation, when applicable, including an engineering report on the effects of the proposed project on the flood-carrying capacity of the watercourse and the effects to properties located both upstream and downstream; and a map (if not shown on plot plan) showing the location of the proposed watercourse alteration or relocation.

(b) Permit requirements. The floodplain development permit shall include, but not be limited to:

1. A complete description of all the development to be permitted under the floodplain development permit (e. g. house, garage, pool, septic, bulkhead, cabana, pier, bridge, mining, dredging, filling, grading, paving, excavation or drilling operations, or storage of equipment or materials, etc.)

2. The Special Flood Hazard Area determination for the proposed development in accordance with available data specified in this ordinance.

3. The Regulatory Flood Protection Elevation required for the reference level and all attendant utilities.

4. The Regulatory Flood Protection Elevation required for the protection of all public utilities.

5. All certification submittal requirements with timelines.

6. A statement that no fill material or other development shall encroach into the floodway or non-encroachment area of any watercourse, unless the requirements in (E)(5) provisions for flood hazard reduction, floodways and non-encroachment areas are met.

7. The flood openings requirements.

8. Limitations on use of enclosed areas below the lowest floor (if applicable), i.e., parking, building access and limited storage only.

9. A statement that all materials below BFE/RFPE must be flood resistant materials.

(c) Certification requirements.

1. Elevation Certificates

a. Elevation Certificate (FEMA Form FF-206-FY22-152) is required prior to the actual start of any new construction. It shall be the duty of the permit holder to submit to the Floodplain Administrator a certification of the elevation of the reference level, in relation to NAVD 1988. The Floodplain Administrator shall review the certificate data submitted. Deficiencies detected by such

review shall be corrected by the permit holder prior to the beginning of construction. Failure to submit the certification or failure to make required corrections shall be cause to deny a floodplain development permit.

- b. An Elevation Certificate (FEMA Form FF-206-FY22-152) is required after the reference level is established. Within seven (7) calendar days of establishment of the reference level elevation, it shall be the duty of the permit holder to submit to the Floodplain Administrator a certification of the elevation of the reference level, in relation to NAVD 1988. Any work done within the seven (7)-day calendar period and prior to submission of the certification shall be at the permit holder's risk. The Floodplain Administrator shall review the certificate data submitted. Deficiencies detected by such review shall be corrected by the permit holder immediately and prior to further work being permitted to proceed. Failure to submit the certification or failure to make required corrections shall be cause to issue a stop-work order for the project.
- c. A final Finished Construction Elevation Certificate (FEMA Form FF-206-fy22-152) is required after construction is completed and prior to Certificate of Compliance/Occupancy issuance. It shall be the duty of the permit holder to submit to the Floodplain Administrator a certification of final as-built construction of the elevation of the reference level and all attendant utilities. The Floodplain Administrator shall review the certificate data submitted. Deficiencies detected by such review shall be corrected by the permit holder immediately and prior to Certificate of Compliance/Occupancy issuance. In some instances, another certification may be required to certify corrected as-built construction. Failure to submit the certification or failure to make required corrections shall be cause to withhold the issuance of a Certificate of Compliance/Occupancy. The Finished Construction Elevation Certificate certifier shall provide at least two (2) photographs showing the front and rear of the building taken within ninety (90) days from the date of certification. The photographs must be taken with views confirming the building description and diagram number provided in (A). To the extent possible, these photographs should show the entire building including foundation. If the building has split-level or multi-level areas, provide at least two (2) additional photographs showing side views of the building. In addition, when applicable, provide a photograph of the foundation showing a representative example of the flood openings or vents. All photographs must be in color and measure at least three (3) inches by three (3) inches. Digital photographs are acceptable.

2. Floodproofing Certificate

- a. If non-residential floodproofing is used to meet the Regulatory Flood Protection Elevation requirements, a Floodproofing Certificate (FEMA Form FF-206-FY22-153), with supporting data, an operational plan, and an inspection and maintenance plan are required prior to the actual start of any new construction. It shall be the duty of the permit holder to submit to the Floodplain Administrator a certification of the floodproofed design elevation of the reference level and all attendant utilities, in relation to NAVD 1988. Floodproofing certification shall be prepared by or under the direct supervision of a licensed professional engineer or a licensed architect and certified by same. The Floodplain Administrator shall review the certificate

data, the operational plan, and the inspection and maintenance plan. Deficiencies detected by such review shall be corrected by the applicant prior to permit approval. Failure to submit the certification or failure to make required corrections shall be cause to deny a Floodplain Development Permit. Failure to construct in accordance with the certified design shall be cause to withhold the issuance of a Certificate of Compliance/Occupancy.

- b. A final Finished Construction Floodproofing Certificate (FEMA Form FF-206-fy22-153), with supporting data, an operational plan, and an inspection and maintenance plan are required prior to the issuance of a Certificate of Compliance/Occupancy. It shall be the duty of the permit holder to submit to the Floodplain Administrator a certification of the floodproofed design elevation of the reference level and all attendant utilities, in relation to NAVD 1988. Floodproofing certificate shall be prepared by or under the direct supervision of a professional engineer or architect and certified by same. The Floodplain Administrator shall review the certificate data, the operational plan, and the inspection and maintenance plan. Deficiencies detected by such review shall be corrected by the applicant prior to Certificate of Occupancy. Failure to submit the certification or failure to make required corrections shall be cause to deny a Floodplain Development Permit. Failure to construct in accordance with the certified design shall be cause to deny a Certificate of Compliance/Occupancy.

3. Manufactured homes. If a manufactured home is placed within Zones A, AE, AH, AO, A99 and the elevation of the chassis is more than 36 inches in height above grade, an engineered foundation certification is required per (E)(2)(c) provisions for flood hazard reduction, specific standards, manufactured homes.

4. Watercourses. If a watercourse is to be altered or relocated, a description of the extent of watercourse alteration or relocation; a professional engineer's certified report on the effects of the proposed project on the flood-carrying capacity of the watercourse and the effects to properties located both upstream and downstream; and a map showing the location of the proposed watercourse alteration or relocation shall all be submitted by the permit applicant prior to issuance of a floodplain development permit.

5. Certification Exemptions. The following structures, if located within Zones A, AE, AH, AO, A99, are exempt from the elevation/floodproofing certification requirements specified in (D)(2)(a) and (D)(2)(b) of this section: (E)(3)(f) recreational vehicles per Provisions for flood hazard reduction, specific standards, recreational vehicles below. Temporary placement and temporary structures per (E)(2)(g) Provisions for flood hazard reduction, specific standards, temporary non-residential structures below; and accessory structures less than 150 square feet meeting requirements of (E)(3)(h) provisions for flood hazard reduction, specific standards, accessory structures below; and accessory structures that are 150 square feet or less or \$5,000 or less and meeting requirements of (E)(2)(h) provisions for flood hazard reduction, specific standards, accessory structures below.

(d) Determinations for existing buildings and structures. For applications for building permits to improve buildings and structures, including alterations, movement, enlargement, replacement, repair, change of occupancy, additions, rehabilitations, renovations, substantial improvements, repairs of substantial damage, and any other improvement of or work on such

buildings and structures, the Floodplain Administrator, in coordination with the Building Official, shall:

1. Estimate the market value, or require the applicant to obtain an appraisal of the market value prepared by a qualified independent appraiser, of the building or structure before the start of construction of the proposed work; in the case of repair, the market value of the building or structure shall be the market value before the damage occurred and before any repairs are made;

2. Compare the cost to perform the improvement, the cost to repair a damaged building to its pre-damaged condition, or the combined costs of improvements and repairs, if applicable, to the market value of the building or structure;

3. Determine and document whether the proposed work constitutes substantial improvement or repair of substantial damage; and

4. Notify the applicant if it is determined that the work constitutes substantial improvement or repair of substantial damage and that compliance with the flood resistant construction requirements of the NC Building Code and this ordinance is required.

(3) Duties and responsibilities of the Floodplain Administrator. The Floodplain Administrator or their designee shall perform, but not be limited to, the following duties:

(a) Review all floodplain development applications and issue permits for all proposed development within Special Flood Hazard Areas to assure that the requirements of this ordinance have been satisfied.

(b) Review all proposed development within Special Flood Hazard Areas to assure that all necessary local, state and federal permits have been received, including Section 404 of the Federal Water Pollution Control Act Amendments of 1972, 33 U.S.C. 1334.

(c) Notify adjacent communities and the North Carolina Department of Public Safety, Division of Emergency Management, State Coordinator for the National Flood Insurance Program prior to any alteration or relocation of a watercourse and submit evidence of such notification to the Federal Emergency Management Agency (FEMA).

(d) Assure that maintenance is provided within the altered or relocated portion of said watercourse so that the flood-carrying capacity is maintained.

(e) Prevent encroachments into floodways and non-encroachment areas unless the certification and flood hazard reduction provisions of division (E)(6) are met.

(f) Obtain actual elevation (in relation to NAVD 1988) of the reference level including basement) and all attendant utilities of all new and substantially improved structures, per (D)(2)(c) administration, certification requirements, certification requirements above.

(g) Obtain actual elevation (in relation to NAVD 1988) to which all new and substantially improved structures and utilities have been floodproofed, in accordance with the provisions of (D)(2)(c) administration, requirements, certification requirements above.

(h) Obtain actual elevation (in relation to NAVD 1988) of all public utilities in accordance with the provisions of (D)(2)(c) administration, requirements, certification requirements above.

(i) When floodproofing is utilized for a particular structure, obtain certifications from a licensed professional engineer or licensed architect in accordance with the provisions of (D)(2)(c) administration, requirements, certification requirements above and (E)(2)(b) provisions for flood hazard reduction, specific standards, non-residential construction below.

(j) Where interpretation is needed as to the exact location of boundaries of the Special Flood Hazard Areas, floodways, or non-encroachment areas for example, where there appears to be a conflict between a mapped boundary and actual field conditions), make the necessary interpretation. The person contesting the location of the boundary shall be given a reasonable opportunity to appeal the interpretation as provided in this section.

(k) When Base Flood Elevation (BFE) data have not been provided in accordance with the provisions of division (C)(2), obtain, review, and reasonably utilize any BFE data, along with floodway data or non-encroachment area data available from a federal, state, or other source, including data developed pursuant to (E)(4) provisions for flood hazard reduction, standards for floodplains without established base flood elevations below and (C)(2) general provisions, Special Flood Hazard Areas above in order to administer the provisions of this ordinance.

(l) When Base Flood Elevation (BFE) data are provided but no floodway or non-encroachment area data have been provided per (C)(2) general provisions, Special Flood Hazard Areas above, obtain, review, and reasonably utilize any floodway data or non-encroachment area data available from a federal, state, or other source in order to administer the provisions of this ordinance.

(m) When the lowest floor and the lowest adjacent grade of a structure or the lowest ground elevation of a parcel in a Special Flood Hazard Areas are above the Base Flood Elevation (BFE), advise the property owner of the option to apply for a Letter of Map Amendment (LOMA) from the North Carolina Division of Emergency Management. Maintain a copy of the LOMA issued by the North Carolina Division of Emergency Management in the floodplain development permit file.

(n) Permanently maintain all records that pertain to the administration of this ordinance and make these records available for public inspection, recognizing that such information may be subject to the Privacy Act of 1974, as amended.

(o) Make on-site inspections of work in progress. As the work pursuant to a floodplain development permit progresses, the Floodplain Administrator shall make as many inspections of the work as may be necessary to ensure that the work is being done according to the provisions of the local ordinance and the terms of the permit. In exercising this power, the Floodplain Administrator has a right, upon presentation of proper credentials, to enter on any premises within the jurisdiction of the community at any reasonable hour for the purposes of inspection or other enforcement action.

(p) Issue stop-work orders as required. Whenever a building or part thereof is being constructed, reconstructed, altered, or repaired in violation of this ordinance, the Floodplain Administrator may order the work to be immediately stopped. The stop-work order shall be in writing and directed to the person doing or in charge of the work. The stop-work order shall state

the specific work to be stopped, the specific reason(s) for the stoppage, and the condition(s) under which the work may be resumed. Violation of a stop-work order constitutes a misdemeanor.

(q) Revoke floodplain development permits as required. The Floodplain Administrator may revoke and require the return of the floodplain development permit by notifying the permit holder in writing stating the reason(s) for the revocation. Permits shall be revoked for any substantial departure from the approved application, plans, and specifications; for refusal or failure to comply with the requirements of state or local laws; or for false statements or misrepresentations made in securing the permit. Any floodplain development permit mistakenly issued in violation of an applicable State or local law may also be revoked.

(r) Make periodic inspections throughout the Special Flood Hazard Areas within the jurisdiction of the community. The Floodplain Administrator and each member of his or her inspections department shall have a right, upon presentation of proper credentials, to enter on any premises within the territorial jurisdiction of the department at any reasonable hour for the purposes of inspection or other enforcement action.

(s) Follow through with corrective procedures of (D)(4) administration, corrective procedures below.

(t) Review, provide input, and make recommendations for variance requests.

(u) Maintain a current map repository to include, but not limited to, the FIS Report, FIRM and other official flood maps and studies adopted per (C)(2) general provisions, special flood hazard areas above, including any revisions thereto including Letters of Map Change, issued by the North Carolina Division of Emergency Management. Notify State and North Carolina Division of Emergency Management of mapping needs.

(v) Coordinate revisions to FIS reports and FIRMs, including Letters of Map Revision Based on Fill (LOMR-Fs) and Letters of Map Revision (LOMRs).

(4) Corrective procedures.

(a) Violations to be corrected. When the Floodplain Administrator finds violations of applicable State and local laws; it shall be his or her duty to notify the owner or occupant of the building of the violation. The owner or occupant shall immediately remedy each of the violations of law cited in such notification.

(b) Actions in Event of Failure to Take Corrective Action: If the owner of a building or property shall fail to take prompt corrective action, the Floodplain Administrator shall give the owner written notice, by certified or registered mail to the owner's last known address or by personal service, stating:

1. That the building or property is in violation of the floodplain management regulations;

2. That a hearing will be held before the Floodplain Administrator at a designated place and time, not later than ten days after the date of the notice, at which time the owner shall be entitled to be heard in person or by counsel and to present arguments and evidence pertaining to the matter; and

3. That following the hearing, the Floodplain Administrator may issue an order to alter, vacate, or demolish the building; or to remove fill as applicable.

(c) Order to take corrective action. If, upon a hearing held pursuant to the notice prescribed above, the Floodplain Administrator shall find that the building or development is in violation of the Flood Damage Prevention Ordinance, he or she shall issue an order in writing to the owner, requiring the owner to remedy the violation within a specified time period, not less than sixty (60) calendar days, nor more than one hundred and eighty (180) calendar days. Where the Floodplain Administrator finds that there is imminent danger to life or other property, he or she may order that corrective action be taken in such lesser period as may be feasible.

(d) Appeal. Any owner who has received an order to take corrective action may appeal the order to the local elected governing body by giving notice of appeal in writing to the Floodplain Administrator and the clerk within ten days following issuance of the final order. In the absence of an appeal, the order of the Floodplain Administrator shall be final. The local governing body shall hear an appeal within a reasonable time and may affirm, modify and affirm, or revoke the order.

(e) Failure to comply with order. If the owner of a building or property fails to comply with an order to take corrective action for which no appeal has been made or fails to comply with an order of the governing body following an appeal, the owner shall be guilty of a Class 1 misdemeanor pursuant to G.S. § 143-215.58 and shall be punished at the discretion of the court.

(5) Variance procedures.

(a) The Board of Adjustment as established by the City of Monroe, hereinafter referred to as the “appeal board”, shall hear and decide requests for variances from the requirements of this ordinance.

(b) Any person aggrieved by the decision of the appeal board may appeal such decision to the Court, as provided in G.S. Ch. 7A.

(c) Variances may be issued for:

1. The repair or rehabilitation of historic structures upon the determination that the proposed repair or rehabilitation will not preclude the structure’s continued designation as a historic structure and that the variance is the minimum necessary to preserve the historic character and design of the structure;

2. Functionally dependent facilities if determined to meet the definition as stated in (B) definitions of this ordinance, provided provisions of (D)(5) administration, variance procedures have been satisfied, and such facilities are protected by methods that minimize flood damages during the base flood and create no additional threats to public safety; or

3. Any other type of development, provided it meets the requirements of this section.

(d) In passing upon variances, the appeal board shall consider all technical evaluations, all relevant factors, all standards specified in other sections of this ordinance, and:

1. The danger that materials may be swept onto other lands to the injury of others;

2. The danger to life and property due to flooding or erosion damage;
3. The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner;
4. The importance of the services provided by the proposed facility to the community;
5. The necessity to the facility of a waterfront location as defined under division (B) of this ordinance as a functionally dependent facility, where applicable;
6. The availability of alternative locations, not subject to flooding or erosion damage, for the proposed use;
7. The compatibility of the proposed use with existing and anticipated development;
8. The relationship of the proposed use to the comprehensive plan and floodplain management program for that area;
9. The safety of access to the property in times of flood for ordinary and emergency vehicles;
10. The expected heights, velocity, duration, rate of rise, and sediment transport of the floodwaters and the effects of wave action, if applicable, expected at the site; and
11. The costs of providing governmental services during and after flood conditions including maintenance and repair of public utilities and facilities such as sewer, gas, electrical and water systems, and streets and bridges.

(e) A written report addressing each of the above factors shall be submitted with the application for a variance.

(f) Upon consideration of the factors listed above and the purposes of this ordinance, the appeal board may attach such conditions to the granting of variances as it deems necessary to further the purposes and objectives of this ordinance.

(g) Any applicant to whom a variance is granted shall be given written notice specifying the difference between the Base Flood Elevation (BFE) and the elevation to which the structure is to be built and that such construction below the BFE increases risks to life and property, and that the issuance of a variance to construct a structure below the BFE may result in increased premium rates for flood insurance up to \$25 per \$100 of insurance coverage. Such notification shall be maintained with a record of all variance actions, including justification for their issuance.

(h) The Floodplain Administrator shall maintain the records of all appeal actions and report any variances to the Federal Emergency Management Agency and the State of North Carolina upon request.

(i) Conditions for variances:

1. Variances shall not be issued when the variance will make the structure in violation of other federal, state, or local laws, regulations, or ordinances.

2. Variances shall not be issued within any designated floodway or non-encroachment area if the variance would result in any increase in flood levels during the base flood discharge.

3. Variances shall only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief.

4. Variances shall only be issued prior to development permit approval.

5. Variances shall only be issued upon:

a. A showing of good and sufficient cause;

b. A determination that failure to grant the variance would result in exceptional hardship; and

c. A determination that the granting of a variance will not result in increased flood heights, additional threats to public safety, or extraordinary public expense, create nuisance, cause fraud on or victimization of the public, or conflict with existing local laws or ordinances.

(j) A variance may be issued for solid waste disposal facilities or sites, hazardous waste management facilities, salvage yards, and chemical storage facilities that are located in Special Flood Hazard Areas provided that all of the following conditions are met.

1. The use serves a critical need in the community.

2. No feasible location exists for the use outside the Special Flood Hazard Areas.

3. The reference level of any structure is elevated or floodproofed to at least the Regulatory Flood Protection Elevation.

4. The use complies with all other applicable federal, state and local laws.

5. The City of Monroe has notified the Secretary of the North Carolina Department of Public Safety of its intention to grant a variance at least thirty (30) calendar days prior to granting the variance.

(E) Provisions for flood hazard reduction.

(1) General standards.

In all Special Flood Hazard Areas, the following provisions are required:

(a) All new construction and substantial improvements shall be designed (or modified) and adequately anchored to prevent flotation, collapse, and lateral movement of the structure.

(b) All new construction and substantial improvements shall be constructed with materials and utility equipment resistant to flood damage in accordance with the FEMA Technical Bulletin 2, Flood Damage-Resistant Materials Requirements.

(c) All new construction and substantial improvements shall be constructed by methods and practices that minimize flood damages.

(d) All new electrical, heating, ventilation, plumbing, air conditioning equipment, and other service facilities shall be designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding to the regulatory flood protection elevation. These include, but are not limited to, HVAC equipment, water softener units, bath/kitchen fixtures, ductwork, electric/gas meter panels/boxes, utility/cable boxes, hot water heaters, and electric outlets/switches.

1. Replacement part of a substantial improvement, electrical, heating, ventilation, plumbing, air conditioning equipment, and other service equipment shall also meet the above provisions.

2. Replacements that are for maintenance and not part of a substantial improvement, may be installed at the original location provided the addition and/or improvements only comply with the standards for new construction consistent with the code and requirements for the original structure.

(e) All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of floodwaters into the system.

(f) New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of floodwaters into the systems and discharges from the systems into floodwaters.

(g) On-site waste disposal systems shall be located and constructed to avoid impairment to them or contamination from them during flooding.

(h) Nothing in this ordinance shall prevent the repair, reconstruction, or replacement of a building or structure existing

(2) Specific standards.

In all special flood hazard areas where Base Flood Elevation (BFE) data have been provided, as set forth per (C)(2) general provisions, special flood hazard areas above or (D)(4) administration, corrective procedures, the following provisions, in addition to the provisions of (E)(1) provisions for flood hazard reduction, general standards above, are required:

(a) Residential construction. New construction and substantial improvement of any residential structure (including manufactured homes) shall have the reference level, including basement, elevated no lower than the Regulatory Flood Protection Elevation, as defined in this section.

(b) Non-residential construction. New construction and substantial improvement of any commercial, industrial, or other non-residential structure shall have the reference level, including

basement, elevated no lower than the Regulatory Flood Protection Elevation, as defined in (B) definitions, of this section. Structures located in A, AE, AO, AH, and A1-30 Zones may be floodproofed to the regulatory flood protection elevation in lieu of elevation provided that all areas of the structure, together with attendant utility and sanitary facilities, below the regulatory flood protection elevation are watertight with walls substantially impermeable to the passage of water, using structural components having the capability of resisting hydrostatic and hydrodynamic loads and the effect of buoyancy. For AO Zones, the floodproofing elevation shall be in accordance with division (E)(6)(b). A registered professional engineer or architect shall certify that the floodproofing standards of this subsection are satisfied. Such certification shall be provided to the Floodplain Administrator as set forth (D)(2)(c) administration, requirements, certification requirements above, along with the operational plan and the inspection and maintenance plan.

(c) Manufactured homes.

1. New and replacement manufactured homes shall be elevated so that the reference level of the manufactured home is no lower than the Regulatory Flood Protection Elevation, as defined in this section.

2. Manufactured homes shall be securely anchored to an adequately anchored foundation to resist flotation, collapse, and lateral movement, either by certified engineered foundation system, or in accordance with the most current edition of the State of North Carolina Regulations for Manufactured Homes adopted by the Commissioner of Insurance pursuant to North Carolina G.S. § 143-143.15. Additionally, when the elevation would be met by an elevation of the chassis thirty-six (36) inches or less above the grade at the site, the chassis shall be supported by reinforced piers or engineered foundation. When the elevation of the chassis is above thirty-six (36) inches in height, an engineering certification is required.

3. All enclosures or skirting below the lowest floor shall meet the requirements of (E)(2)(d) provisions for flood hazard reduction, specific standards, elevated buildings.

4. An evacuation plan must be developed for evacuation of all residents of all new, substantially improved or substantially damaged manufactured home parks or subdivisions located within flood prone areas. This plan shall be filed with and approved by the Floodplain Administrator and the local Emergency Management Coordinator.

(d) Elevated buildings. Fully enclosed area, of new construction and substantially improved structures, which is below the lowest floor:

1. Shall not be designed or used for human habitation, but shall only be used for parking of vehicles, building access, or limited storage of maintenance equipment used in connection with the premises. Access to the enclosed area shall be the minimum necessary to allow for parking of vehicles (garage door) or limited storage of maintenance equipment (standard exterior door), or entry to the living area (stairway or elevator). The interior portion of such enclosed area shall not be finished or partitioned into separate rooms, except to enclose storage areas;

2. Shall not be temperature-controlled or conditioned.

3. Shall be constructed entirely of flood resistant materials at least to the Regulatory Flood Protection Elevation; and

4. Shall include flood openings to automatically equalize hydrostatic flood forces on walls by allowing for the entry and exit of floodwaters. To meet this requirement, the openings must either be certified by a professional engineer or architect or meet or exceed the following minimum design criteria:

a. A minimum of two (2) flood openings on different sides of each enclosed area subject to flooding;

b. The total net area of all flood openings must be at least one (1) square inch for each square foot of enclosed area subject to flooding;

c. If a building has more than one enclosed area, each enclosed area must have flood openings to allow floodwaters to automatically enter and exit;

d. The bottom of all required flood openings shall be no higher than one (1) foot above the adjacent grade;

e. Flood openings may be equipped with screens, louvers, or other coverings or devices, provided they permit the automatic flow of floodwaters in both directions; and

f. Enclosures made of flexible skirting are not considered enclosures for regulatory purposes, and, therefore, do not require flood openings. Masonry or wood underpinning, regardless of structural status, is considered an enclosure and requires flood openings as outlined above.

5. Property owners shall be required to execute and record a non-conversion agreement prior to issuance of a building permit declaring that the area below the lowest floor shall not be improved, finished or otherwise converted to habitable space. The City of Monroe will have the right to inspect the enclosed area and will conduct annual inspections to confirm compliance. This agreement shall be recorded with the Union Name County Register of Deeds and shall transfer with the property in perpetuity. Violation of the agreement is considered a violation of the ordinance and, therefore, subject to the same enforcement procedures and penalties. The agreement must be filed with the recorded deed for the property. The agreement must show the clerk's or recorder's stamps and/or notations that the filing has been completed.

6. Release of restrictive covenant. If a property which is bound by a non-conversion agreement is modified to remove enclosed areas below BFE, then the owner may request release of restrictive covenant after staff inspection and submittal of confirming documentation.

(e) Additions/improvements.

1. Additions and/or improvements to pre-FIRM structures when the addition and/or improvements in combination with any interior modifications to the existing structure are:

a. Not a substantial improvement, the addition and/or improvements must be designed to minimize flood damages and must not be any more non-conforming than the existing structure.

b. A substantial improvement, with modifications/rehabilitations/improvements to the existing structure or the common wall is structurally modified more than installing a doorway, both the existing structure and the addition must comply with the standards for new construction.

2. Additions to pre-FIRM or post-FIRM structures with no modifications to the existing structure other than a standard door in the common wall shall require only the addition to comply with the standards for new construction.

3. Additions and/or improvements to post-FIRM structures when the addition and/or improvements in combination with any interior modifications to the existing structure are:

a. Not a substantial improvement, the addition and/or improvements only must comply with the standards for new construction.

b. A substantial improvement, the existing structure and the addition and/or improvements must comply with the standards for new construction.

4. Any combination of repair, reconstruction, rehabilitation, addition or improvement of a building or structure taking place during a ten-year period, the cumulative cost of which equals or exceeds 50% of the market value of the structure before the improvement or repair is started must comply with the standards for new construction. For each building or structure, the ten (10)-year period begins on the date of the first improvement or repair of that building or structure subsequent to the effective date of this ordinance. Substantial damage also means flood-related damage sustained by a structure on two separate occasions during a ten-year period for which the cost of repairs at the time of each such flood event, on the average, equals or exceeds 25% of the market value of the structure before the damage occurred. If the structure has sustained substantial damage, any repairs are considered substantial improvement regardless of the actual repair work performed. The requirement does not, however, include either:

a. Any project for improvement of a building required to correct existing health, sanitary or safety code violations identified by the building official and that are the minimum necessary to assume safe living conditions.

b. Any alteration of a historic structure provided that the alteration will not preclude the structure's continued designation as a historic structure.

(f) Recreational vehicles. Recreational vehicles shall either:

1. Temporary placement: Be on site for fewer than 180 consecutive days and be fully licensed and ready for highway use (a recreational vehicle is ready for highway use if it is on its wheels or jacking system, is attached to the site only by quick disconnect type utilities, and has no permanently attached additions); or meet all the requirements for new construction.

2. Permanent placement. Recreational vehicles that do not meet the limitations of temporary placement shall meet all the requirements for new construction.

(g) Temporary non-residential structures. Prior to the issuance of a floodplain development permit for a temporary structure, the applicant must submit to the Floodplain Administrator a plan for the removal of such structure(s) in the event of a hurricane, flash flood or other type of flood warning notification. The following information shall be submitted in writing to the Floodplain Administrator for review and written approval:

1. A specified time period for which the temporary use will be permitted. Time specified may not exceed three months, renewable up to one (1) year;

2. The name, address, and phone number of the individual responsible for the removal of the temporary structure;

3. The time frame prior to the event at which a structure will be removed (i.e., minimum of 72 hours before landfall of a hurricane or immediately upon flood warning notification);

4. A copy of the contract or other suitable instrument with the entity responsible for physical removal of the structure; and

5. Designation, accompanied by documentation, of a location outside the Special Flood Hazard Areas, to which the temporary structure will be moved.

(h) Accessory structures. When accessory structures (sheds, detached garages, etc.) are to be placed within a Special Flood Hazard Areas, the following criteria shall be met:

1. Accessory structures shall not be used for human habitation including working, sleeping, living, cooking or restroom areas);

2. Accessory structures shall not be temperature-controlled;

3. Accessory structures shall be designed to have low flood damage potential;

4. Accessory structures shall be constructed and placed on the building site so as to offer the minimum resistance to the flow of floodwaters;

5. Accessory structures shall be firmly anchored in accordance with the provisions of (E)(1)(a) provisions for flood hazard reduction, general standards, above;

6. All service facilities such as electrical shall be installed in accordance with the provisions of (E)(1)(d) provisions for flood hazard reduction, general standards, above;

7. Flood openings to facilitate automatic equalization of hydrostatic flood forces shall be provided below regulatory flood protection elevation in conformance with the provisions of (E)(2)(d)4. provisions for flood hazard reduction, specific standards, elevated buildings, above;

8. An accessory structure with a footprint less than 150 square feet that satisfies the criteria outlined above does not require an elevation or floodproofing certificate. Elevation or floodproofing certifications are required for all other accessory structures in accordance with division (D)(2)(c);

9. An accessory structure with a footprint less than 150 square feet or that is a minimal investment of \$3,000 or less and satisfies the criteria outlined above is not required to meet the elevation or floodproofing standards of (E)(2)(b) provisions for Flood hazard reduction, specific standards, non-residential construction above. Elevation or floodproofing certifications are required for all other accessory structures in accordance with (D)(2)(c) administration, requirements, certification requirements above.

(i) Tanks. When gas and liquid storage tanks are to be placed within a Special Flood Hazard Areas, the following criteria shall be met:

1. Underground tanks. Underground tanks in flood hazard areas shall be anchored to prevent flotation, collapse or lateral movement resulting from hydrodynamic and hydrostatic loads during conditions of the design flood, including the effects of buoyancy assuming the tank is empty;

2. Above ground tanks, elevated. Above-ground tanks in flood hazard areas shall be elevated to or above the regulatory flood protection elevation on a supporting structure that is designed to prevent flotation, collapse or lateral movement during conditions of the design flood. Tank-supporting structures shall meet the foundation requirements of the applicable flood hazard area;

3. Above ground tanks, not elevated. Above-ground tanks that do not meet the elevation requirements of this ordinance shall be permitted in flood hazard areas provided the tanks are designed, constructed, installed, and anchored to resist all flood-related and other loads, including the effects of buoyancy, during conditions of the design flood and without release of contents in the floodwaters or infiltration by floodwaters into the tanks. Tanks shall be designed, constructed, installed, and anchored to resist the potential buoyant and other flood forces acting on an empty tank during design flood conditions;

4. Tanks, inlets and vents. Tank inlets, fill openings, outlets and vents shall be at or above the Regulatory Flood Protection Elevation or fitted with covers designed to prevent the inflow of floodwater or outflow of the contents of the tanks during conditions of the design flood; and anchored to prevent lateral movement resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy, during conditions of the design flood.

(j) Other development.

1. Fences in regulated floodways and NEAs that have the potential to block the passage of floodwaters, such as stockade fences and wire mesh fences, shall meet the limitations of (E)(6) provisions for flood hazard reduction, standards for areas of shallow flooding (Zone AO) below.

2. Retaining walls, sidewalks and driveways in regulated floodways and NEAs. Retaining walls and sidewalks and driveways that involve the placement of fill in regulated floodways shall meet the limitations of (E)(6) provisions for flood hazard reduction, standards for areas of shallow flooding (Zone AO) below.

3. Roads and watercourse crossings in regulated floodways and NEAs. Roads and watercourse crossings, including roads, bridges, culverts, low-water crossings and similar means for vehicles or pedestrians to travel from one side of a watercourse to the other side, that encroach into regulated floodways shall meet the limitations of (E)(6) provisions for flood hazard reduction, standards for areas of shallow flooding (Zone AO) below.

4. Commercial storage facilities are not considered “limited storage” as noted in this ordinance and shall be protected to the Regulatory Flood Protection Elevation as required for commercial structures.

(3) Reserved.

(4) Standards for floodplains without established base flood elevations.

Within the Special Flood Hazard Areas designated as Approximate Zone A and established in (C)(2) general provisions, Special Flood Hazard Areas above, where no Base Flood Elevation (BFE) data have been provided by FEMA, the following provisions, in addition to the provisions of (E)(1) provisions for flood hazard reduction, general standards above, shall apply:

(a) No encroachments, including fill, new construction, substantial improvements or new development shall be permitted within a distance of 20 feet each side from top of bank or five times the width of the stream, whichever is greater, unless certification with supporting technical data by a licensed professional engineer is provided demonstrating that such encroachments shall not result in any increase in flood levels during the occurrence of the base flood discharge.

(b) The BFE used in determining the regulatory flood protection elevation shall be determined based on the following criteria:

1. When Base Flood Elevation (BFE) data are available from other sources, all new construction and substantial improvements within such areas shall also comply with all applicable provisions of this ordinance and shall be elevated or floodproofed in accordance with standards in (E)(1) provisions for flood hazard reduction, general standards and (E)(2) specific standards above.

2. When floodway or non-encroachment data are available from a federal, state, or other source, all new construction and substantial improvements within floodway and non-encroachment areas shall also comply with the requirements of (E)(2) provisions for flood hazard reduction, specific standards above and (E)(6) standards for areas of shallow flooding (Zone AO) below.

3. All subdivision, manufactured home park and other development proposals shall provide Base Flood Elevation (BFE) data if development is greater than five acres or has more than 50 lots/manufactured home sites. Such BFE data shall be adopted by reference per (C)(2) general provisions, special flood hazard areas above and utilized in implementing this ordinance.

4. When Base Flood Elevation (BFE) data are not available from a federal, state, or other source as outlined above, the reference level shall be elevated or floodproofed (nonresidential) to or above the regulatory flood protection elevation, as defined in (B) definitions. All other applicable provisions of division (E)(2) provisions for flood hazard reduction, specific standards above shall also apply.

(5) Standards for riverine floodplains with base flood elevations but without established floodways or non-encroachment areas.

Along rivers and streams where Base Flood Elevation (BFE) data is provided by FEMA or is available from another source but neither floodway nor non-encroachment areas are identified for a Special Flood Hazard Areas on the FIRM or in the FIS report, the following requirements shall apply to all development within such areas:

(a) Standards of (E)(1) provisions for flood hazard reduction, general standards and (E)(2) specific standards above; and

(b) Until a regulatory floodway or non-encroachment area is designated, no encroachments, including fill, new construction, substantial improvements, or other development, shall be permitted unless certification with supporting technical data by a licensed professional engineer is provided demonstrating that the cumulative effect of the proposed development, when combined with all other existing and anticipated development, will not increase the water surface elevation of the base flood more than one foot at any point within the community.

(6) Floodways and non-encroachment areas.

Areas, designated as floodways or non-encroachment areas are located within the Special Flood Hazard Areas established per (C)(2) general provisions, special flood hazard areas above. The floodways and non-encroachment areas are extremely hazardous areas due to the velocity of floodwaters that have erosion potential and carry debris and potential projectiles. The following provisions, in addition to the standards outlined in (E)(1) provisions for flood hazard reduction, general standards and (E)(2) specific standards, shall apply to all development within such areas:

(a) No encroachments, including fill, new construction, substantial improvements and other developments shall be permitted unless:

1. It is demonstrated that the proposed encroachment would not result in any increase in the flood levels during the occurrence of the base flood, based on hydrologic and hydraulic analyses performed in accordance with standard engineering practice and presented to the Floodplain Administrator prior to issuance of a floodplain development permit; or

2. A Conditional Letter of Map Revision (CLOMR) has been approved by the North Carolina Division of Emergency Management. A Letter of Map Revision (LOMR) must also be obtained upon completion of the proposed encroachment.

(b) If (E)(6) provisions for flood hazard reduction, standards for areas of shallow flooding (Zone AO) below is satisfied, all development shall comply with all applicable flood hazard reduction provisions of this ordinance.

(c) No manufactured homes shall be permitted, except replacement manufactured homes in an existing manufactured home park or subdivision, provided the following provisions are met:

1. The anchoring and the elevation standards of (E)(2)(c) provisions for flood hazard reduction, specific standards, manufactured homes below; and

2. The no encroachment standard of (E)(6)(c) provisions for flood hazard reduction, standards for areas of shallow flooding (Zone AO), below.

(7) Standards for areas of shallow flooding (Zone AO).

Located within the Special Flood Hazard Areas established in (C)(2) general provisions, special flood hazard areas above, are areas designated as shallow flooding areas. These areas have special flood hazards associated with base flood depths of one (1) to three (3) feet where a clearly defined channel does not exist and where the path of flooding is unpredictable and indeterminate. In addition to division (E)(1) provisions for flood hazard reduction, general standards and (E)(2)

specific standards above, all new construction and substantial improvements shall meet the following requirements:

(a) The reference level shall be elevated at least as high as the depth number specified on the Flood Insurance Rate Map(FIRM), in feet, plus a freeboard of two (2) feet, above the highest adjacent grade; or at least two (2) feet above the highest adjacent grade if no depth number is specified.

(b) Non-residential structures may, in lieu of elevation, be floodproofed to the same level as required in (a) above so that the structure, together with attendant utility and sanitary facilities, below that level shall be watertight with walls substantially impermeable to the passage of water and with structural components having the capability of resisting hydrostatic and hydrodynamic loads and effects of buoyancy. Certification is required per (D)(2)(c) administration, requirements, certification requirements and (E)(2)(b) provisions for flood hazard reduction, specific standards, non-residential construction above.

(c) Adequate drainage paths shall be provided around structures on slopes, to guide floodwaters around and away from proposed structures.

(8) Standards for areas of shallow flooding (Zone AH).

Within the Special Flood Hazard Areas established in (C)(2) general provisions, special flood hazard areas above are areas designated as shallow flooding areas. These areas are subject to inundation by 1%-annual-chance shallow flooding (usually areas of ponding) where average depths are one to three feet. Base Flood Elevations are derived from detailed hydraulic analyses are shown in this zone. In addition to § 159.805(A) Boundaries of Floodplain and Floodway Districts, Boundaries, all new construction and substantial improvements shall meet the following requirements:

(a) Adequate drainage paths shall be provided around structures on slopes, to guide floodwaters around and away from proposed structures.

(F) Legal status provisions.

(1) Effect on rights and liabilities under the existing Flood Damage Prevention Ordinance. This ordinance in part comes forward by re-enactment of some of the provisions of the Flood Damage Prevention Ordinance enacted December 16, 2003 as amended, and it is not the intention to repeal but rather to re-enact and continue to enforce without interruption of such existing provisions, so that all rights and liabilities that have accrued thereunder are reserved and may be enforced. The enactment of this ordinance shall not affect any action, suit or proceeding instituted or pending. All provisions of the Flood Damage Prevention Ordinance of the City of Monroe enacted on December 16, 2003, as amended, which are not reenacted herein are repealed. The date of the initial Flood Damage Prevention Ordinance for Union County is December 16, 2003.

(2) Effect upon outstanding floodplain development permits. Nothing herein contained shall require any change in the plans, construction, size, or designated use of any development or any part thereof for which a floodplain development permit has been granted by the Floodplain Administrator or his or her authorized agents before the time of passage of this ordinance; provided, however, that when construction is not begun under such outstanding permit within a

period of six (6) months subsequent to the date of issuance of the outstanding permit, construction or use shall be in conformity with the provisions of this ordinance

(3) Severability. If any section, clause, sentence, or phrase of the ordinance is held to be invalid or unconstitutional by any court of competent jurisdiction, then said holding shall in no way effect the validity of the remaining portions of this ordinance.

(4) Effective date. This ordinance shall become effective upon adoption.

(5) *Adoption Certification.*

I hereby certify that this is a true and correct copy of the Flood Damage Prevention Ordinance as adopted by the governing body of Monroe, North Carolina, on the Day (number or text) day of Month, Year.

WITNESS my hand and the official seal of insert Name, Title, this the Day (number or text) day of Month, Year.

(signature)

156.802 FLOODPLAIN AND FLOODWAY DISTRICTS.

Generally, the floodplain and floodway districts are hereby established as “overlay” districts, meaning that these districts are overlaid upon other districts and the land, so encumbered, may be used in a manner permitted in the underlying district only if and to the extent such use is also permitted in the applicable overlay district. Refer to Section 156.801 “Flood Damage Prevention Ordinance” for requirements for development within the floodplain and floodway.

156.803 OBSTRUCTIONS.

(A) Standard. No artificial obstruction may be located within any floodway.

(B) Definition. For purposes of this subchapter, an artificial obstruction is any obstruction, other than a natural obstruction, that is capable of reducing the flood carrying capacity of a stream or may accumulate debris and thereby reduce the flood-carrying capacity of a stream. A natural obstruction includes any rock, tree, gravel, or analogous natural matter that is an obstruction and has been located within the floodway by a nonhuman cause.

156.804 FLOODPLAIN SUBDIVISION PROVISIONS.

(A) Notice. An applicant for a planned district authorizing a major subdivision and an applicant for minor subdivision final plat approval shall be informed by the planning department of the use and construction restrictions of any portion of the land to be subdivided if it lies within a floodway or floodplain.

(B) Plat. Final plat approval for any subdivision containing land that lies within a floodway or floodplain may not be given unless the plat shows the boundary of the floodway or floodplain and contains in clearly discernible print the following statement: “Use of land within a floodplain is substantially restricted by Chapter 156: Floodplain Regulations in the Monroe Code of Ordinances.”

156.805 BOUNDARIES OF FLOODPLAIN AND FLOODWAY DISTRICTS.

(A) Boundaries. As used in this subsection, the terms floodplain and floodway refer in the first instance to certain areas whose boundaries are determined and can be located on the ground by reference to the specific fluvial characteristics set forth the definition of these terms. These terms also refer to overlay zoning districts whose boundaries are established on the map, which boundaries are intended to correspond to the actual physical location of floodways and floodplains. These overlay districts thus differ from other zoning districts whose boundaries are established solely according to planning or policy, rather than physical criteria. Therefore, the City Floodplain Administrator is authorized to make necessary interpretations as to the exact location of the boundaries of the floodways or floodplains if there appears to be a conflict between a mapped boundary and actual field conditions. Such interpretations, like other decisions of the administrator, may be appealed to the Board of Adjustment in accordance with the applicable provisions of Chapter 157 Unified Development Ordinance.

(B) Maps. The Flood Insurance Rate Map Panels of properties within the corporate limits and extra territorial jurisdiction of the City of Monroe are identified by the Cooperating Technical State (CTS) agreement between the State of North Carolina and FEMA in its Flood Insurance Study (FIS) for Union County and the City of Monroe and may be viewed or downloaded from the North Carolina Flood Risk Information System (FRIS) website at <https://fris.nc.gov/>.

Section 3. This Ordinance shall be effective upon adoption.

Adopted this 8th day of July, 2025.

Robert A. Burns, Mayor

Attest:

Bridgette H. Robinson, City Clerk



STAFF REPORT

TO: Public Enterprise Committee

VIA: Mark Watson, City Manager

DATE: July 1, 2025

FROM: Sarah McAllister, P.E., Engineering Director

PREPARED BY: Bonnie Fisher, P.E. – Stormwater Engineering Manager

SUBJECT: Updates to City Ordinance Chapter 159: Stormwater Management

SUMMARY STATEMENT

The Public Enterprise Committee is requested to consider recommended updates to the City of Monroe Code of Ordinances Chapter 159: Stormwater Management.

REVIEW

A comprehensive review of Chapter 159: Stormwater Management was conducted by Stormwater staff. Proposed revisions are detailed in the attached tracked changes document.

The purpose of the revisions to the Ordinance is to strengthen the City’s ability to meet the Post-Construction requirements of the NPDES (National Pollutant Discharge Elimination System) MS4 (municipal separate storm sewer system) Permit by updating design standards and strengthening enforcement capabilities. The revised ordinance allows for the ability to levy fines comparable to the City’s Erosion Control Ordinance. Stormwater staff developed a civil penalty structure not to exceed amounts dependent upon the type violation and its severity.

Some sections of the Stormwater Management ordinance were reorganized to provide clarity for design standards. Below is a summary of the Section number changes.

| Current Section Number and Title | Proposed Section Number and Title |
|----------------------------------|--|
| 159.304 Reserved | 159.304 Stream Buffer Requirements (moved from 159.807) |
| 159.808 Watershed Districts | 159.302 (D) Watershed Districts |

RECOMMENDATION

Staff recommends approval of Ordinance Amendment O-2025-24. If the Public Enterprise Committee is in agreement, the items will be placed on the consent agenda for consideration by City Council at the next meeting on July 8, 2025.

Attachments: Tracked changes for Chapter 159 Stormwater Management Ordinance
 Proposed Code of Ordinances Chapter 159 Stormwater Management Ordinance

SECTION 1: GENERAL PROVISIONS

159.101 TITLE

This Ordinance shall be known as “The Stormwater Management Ordinance,” hereinafter as “Ordinance,” and may be so cited.

Commented [TS1]: This looks like more than just post-construction. Looks like stormwater management in general

Commented [BAF2R1]: Will leave title as is

159.102 AUTHORITY

The City Council is authorized to adopt this Ordinance pursuant to North Carolina law, including but not limited to Article 14, Section 5 of the Constitution of North Carolina; North Carolina General Statutes: Chapter 15-27.2. (Warrants to conduct inspections authorized by law), Chapter 143-214.5 (Water supply watershed protection), Chapter 143-214.7 (Stormwater runoff rules and programs) and rules promulgated by the Environmental Management Commission thereunder; Session Law 2006-246 (Phase II Stormwater Management); Chapter 160A, § 174, 175 & 185 (General ordinance-making power, Enforcement of ordinance & Emission of pollutants or contaminants.)

159.103 FINDINGS

It is hereby determined that:

Development and *redevelopment* alter the hydrologic response of local watersheds and increase stormwater runoff rates and volumes, flooding, soil erosion, stream channel erosion, nonpoint and point source pollution, and sediment transport and deposition, as well as reducing groundwater recharge;

These changes in stormwater runoff contribute to increased quantities of water-borne pollutants and alterations in hydrology that are harmful to public health and safety as well as to the natural environment;

These effects can be managed and minimized by applying proper design and well-planned controls to manage stormwater runoff from *development* sites.

Further, the Federal Water Pollution Control Act of 1972 (“Clean Water Act”) and federal Phase II Stormwater Rules promulgated under it, as well as rules of the North Carolina Environmental Management Commission promulgated in response to federal Phase II requirements, compel certain urbanized areas, including this jurisdiction, to adopt minimum stormwater controls such as those included in this Ordinance.

Therefore, the City Council establishes this set of water quality and quantity regulations to meet the requirements of state and federal law regarding control of stormwater runoff and discharge.

159.104 PURPOSE

(A) General

The purpose of this Ordinance is to protect, maintain and enhance the public health, safety, environment and general welfare by establishing minimum requirements and procedures to control the adverse effects of increased post-

development stormwater runoff and nonpoint ~~and point~~ source pollution associated with new *development* and *redevelopment* ~~as well as illicit discharges into municipal stormwater systems~~. It has been determined that proper management of construction-related and post-*development* stormwater runoff will minimize damage to public and private property and infrastructure; safeguard the public health, safety, and general welfare; and protect water and aquatic resources.

Commented [BAF3]: Moved to new ordinance

(B) Specific

This Ordinance seeks to meet its general purpose through the following specific objectives and means:

1. Establishing decision-making processes for *development* that protect the integrity of watersheds and preserve the health of water resources;
2. Requiring that new *development* and *redevelopment* maintain the pre-*development* hydrologic response in their post-*development* state as nearly as practicable for the applicable design storm to reduce flooding, stream bank erosion, nonpoint and point source pollution and increases in stream temperature, and to maintain the integrity of stream channels and aquatic habitats;
3. Establishing minimum post-*development* stormwater management standards and design criteria for the regulation and control of stormwater runoff quantity and quality;
4. Establishing design and review criteria for the construction, function, and use of structural ~~stormwater-BMP~~ Stormwater Control Measures (hereinafter SCMs) that may be used to meet the minimum post-*development* stormwater management standards;
5. Encouraging the use of better management and site design practices, such as the use of vegetated conveyances for stormwater and the preservation of greenspace, riparian buffers and other conservation areas to the maximum extent practicable;
6. Establishing provisions for the long-term responsibility for and maintenance of *structural and nonstructural* ~~stormwater-BMP~~ SCMs to ensure that they continue to function as designed, are maintained appropriately, and pose no threat to public safety;
7. Establishing administrative procedures for the submission, review, approval and disapproval of *stormwater management plans*, for the inspection of approved projects, and to assure appropriate long-term maintenance.
8. Coordinating site design plans that include open space and natural areas with the Unified Development Ordinance.

9. Controlling illicit discharges into the municipal separate stormwater system in conjunction with the Stormwater Illicit Discharge Elimination Ordinance.

10. Controlling erosion and sedimentation from construction activities in conjunction with the Erosion and Sedimentation Control Ordinance.

11. Assigning responsibility and processes for approving the creation and maintenance of adequate drainage and flood damage prevention measures in conjunction with the Floodplain Regulations Ordinance.

159.105 APPLICABILITY AND JURISDICTION

(A) General

Beginning with and subsequent to its effective date, this Ordinance shall be applicable to all *development* and *redevelopment*, including, but not limited to, site plan applications, subdivision applications, and grading applications, unless exempt pursuant to Subsection (B) of this Section, Exemptions.

(B) Exemptions

~~(1)~~ **Threshold**

- 1) Residential *development* that cumulatively disturbs less than one acre and is not part of a *larger common plan of development or sale*, and non-residential *development* that cumulatively disturbs less than one-half acre and is not part of a *larger common plan of development or sale* is exempt from the provisions of this Ordinance.
- 2) *Redevelopment* outside the *floodplain* that results in no net increase in *built-upon area* and provides equal or greater stormwater control than the previous development is exempt from the provisions of this Ordinance.
- 3) *Redevelopment* of residential structures that results in no net increase in *built-upon area* and provides equal or greater stormwater control than the previous development is exempt from the provisions of this Ordinance whether or not within the *floodplain*.
- 4) *Redevelopment* of non-residential structures that disturbs less than one-half acre, that is not part of a *larger common plan of development or sale*, that is within the *floodplain*, and that results in no net increase in *built-upon area* and provides equal or greater stormwater control than the previous development is exempt from the provisions of this Ordinance.
- 4)5) *Development* and *redevelopment* that disturb less than a stated area threshold are not exempt if such activities are part of a *larger common plan of development or sale* that exceeds the area threshold, even though multiple, separate or distinct activities take place at different times on different schedules.

~~(2)~~ **General exemption**

~~2)6)~~ Activities that are exempt from permit requirements of Section 404 of the Federal Clean Water Act as specified in 40 CFR 232 (primarily, ongoing farming and forestry activities) are exempt from the provisions of this Ordinance.

(C) No Development or Redevelopment Until Compliance and Permit

No *development* or *redevelopment* shall occur except in compliance with the provisions of this Ordinance or unless exempted. No *development* for which a permit is required pursuant to this Ordinance shall occur except in compliance with the provisions, conditions, and limitations of the permit.

(D) Map

The provisions of this Ordinance shall apply within the areas designated on the map titled "Phase II Stormwater Map of City of Monroe, North Carolina" ("the Stormwater Map"), which is adopted simultaneously herewith. The Stormwater Map and all explanatory matter contained thereon accompanies and is hereby made a part of this Ordinance.

The Stormwater Map shall be kept on file by the Stormwater Administrator and shall be updated to take into account changes in the land area covered by this Ordinance and the geographic location of all *structural BMPSCMs* permitted under this Ordinance. In the event of a dispute, the applicability of this Ordinance to a particular area of land or *BMPSCM* shall be determined by reference to the North Carolina Statutes, the North Carolina Administrative Code, and local zoning and jurisdictional boundary ordinances.

Commented [TS4]: Includes all within City Limits. Does it include ETJ?

Commented [BAF5R4]: Yes, the Map references the City limits and the ETJ; Map title is being updated to match this Ordinance title

159.106 INTERPRETATION

(A) Meaning and Intent

All provisions, terms, phrases, and expressions contained in this Ordinance shall be construed according to the general and specific purposes set forth in Section 104, Purpose. If a different or more specific meaning is given for a term defined elsewhere in City of Monroe Code of Ordinances, the meaning and application of the term in this Ordinance shall control for purposes of application of this Ordinance.

(B) Text Controls in Event of Conflict

In the event of a conflict or inconsistency between the text of this Ordinance and any heading, caption, figure, illustration, table, or map, the text shall control.

(C) Authority for Interpretation

The Stormwater Administrator has authority to determine the interpretation of this Ordinance. Any person may request an interpretation by submitting a written request to the Stormwater Administrator, who shall respond in writing within thirty (30) days. The Stormwater Administrator shall keep on file a record of all written interpretations of this Ordinance.

(D) References to Statutes, Regulations, and Documents

Whenever reference is made to a resolution, ordinance, statute, regulation, manual (including the *Stormwater Design Manual* prepared by the North Carolina Department of Environmental Quality and Natural Resources), or document, it shall be construed as a reference to the most recent edition of such that has been finalized and published with due provision for notice and comment, unless otherwise specifically stated.

(E) Computation of Time

The time in which an act is to be done shall be computed by excluding the first day and including the last day. If a deadline or required date of action falls on a Saturday, Sunday, or holiday observed by the City of Monroe, the deadline or required date of action shall be the next day that is not a Saturday, Sunday or holiday observed by the City of Monroe. References to days are calendar days unless otherwise stated.

(F) Delegation of Authority

Any act authorized by this Ordinance to be carried out by the Stormwater Administrator of City of Monroe may be carried out by his or her designee.

(G) Usage

(1) Mandatory and Discretionary Terms

The words “shall,” “must,” and “will” are mandatory in nature, establishing an obligation or duty to comply with the particular provision. The words “may” and “should” are permissive in nature.

(2) Conjunctions

Unless the context clearly indicates the contrary, conjunctions shall be interpreted as follows: The word “and” indicates that all connected items, conditions, provisions and events apply. The word “or” indicates that one or more of the connected items, conditions, provisions or events apply.

(3) Tense, Plurals, and Gender

Words used in the present tense include the future tense. Words used in the singular number include the plural number and the plural number includes the singular number, unless the context of the particular usage clearly indicates otherwise. Words used in the masculine gender include the feminine gender, and vice versa.

(H) Measurement and Computation

Lot area refers to the amount of horizontal land area contained inside the lot lines of a lot or site.

159.107 STORMWATER DESIGN MANUAL

(A) Reference to Stormwater Design Manual

The Stormwater Administrator shall use the policy, criteria, and information, including technical specifications and standards, in the *Stormwater Design Manual* prepared by the North Carolina Department of Environmental Quality and Natural Resources as the basis for decisions about stormwater permits and about the minimum design criteria (MDC), implementation and performance of structural and non-structural stormwater *BMP control measures*.

The *Stormwater Design Manual* includes a list of acceptable stormwater treatment practices, including specific MDC's design criteria for each stormwater practice. Stormwater treatment practices that are designed, constructed, and maintained in accordance with these design and sizing criteria will be presumed to meet the minimum water quality performance standards of the Phase II and other applicable stormwater laws.

(B) Relationship of Stormwater Design Manual to Other Laws and Regulations

If the specifications or guidelines of the *Stormwater Design Manual* are more restrictive or apply a higher standard than other laws or regulations, that fact shall not prevent application of the specifications or guidelines in the *Stormwater Design Manual*.

(C) Changes to Standards and Specifications

If the standards, specifications, guidelines, policies, criteria, or other information in the *Stormwater Design Manual* are amended subsequent to the submittal of an application for approval pursuant to this Ordinance but prior to approval, standards in effect at the time of submission shall apply pursuant to NC GS 143-755, the new information shall control and shall be utilized in reviewing the application and in implementing this Ordinance with regard to the application.

Commented [TS6]: This does not comply with GS 143-755/ If standards change after submission of application, new standards do not apply unless applicant chooses.

Commented [BAF7R6]: acknowledged

159.108 RELATIONSHIP TO OTHER LAWS, REGULATIONS AND PRIVATE AGREEMENTS

(A) Conflict of Laws

This Ordinance is not intended to modify or repeal any other ordinance, rule, regulation or other provision of law. The requirements of this Ordinance are in addition to the requirements of any other Ordinance, rule, regulation or other provision of law. Where any provision of this Ordinance imposes restrictions different from those imposed by any other ordinance, rule, regulation or other provision of law, whichever provision is more restrictive or imposes higher protective standards for human or environmental health, safety, and welfare shall control.

(B) Private Agreements

This Ordinance is not intended to revoke or repeal any easement, covenant, or other private agreement. However, where the regulations of this Ordinance are

more restrictive or impose higher standards or requirements than such an easement, covenant, or other private agreement, the requirements of this Ordinance shall govern. Nothing in this Ordinance shall modify or repeal any private covenant or deed restriction, but such covenant or restriction shall not legitimize any failure to comply with this Ordinance. In no case shall the City of Monroe be obligated to enforce the provisions of any easements, covenants, or agreements between private parties.

159.109 SEVERABILITY

If the provisions of any section, subsection, paragraph, subdivision or clause of this Ordinance shall be adjudged invalid by a court of competent jurisdiction, such judgment shall not affect or invalidate the remainder of any section, subsection, paragraph, subdivision or clause of this Ordinance.

159.110 EFFECTIVE DATE AND TRANSITIONAL PROVISIONS

(A) Effective Date

This Ordinance shall take effect on October 1, 2007.

(B) Final Approvals, Complete Applications

All *development* and *redevelopment* projects for which complete and full applications were submitted and approved by the City prior to the effective date of this Ordinance ~~and which remain valid, unexpired, unrevoked and not otherwise terminated at the time of development or redevelopment~~ shall be exempt from complying with all provisions of this Ordinance, ~~dealing with the control and/or management of post-construction runoff, but shall be required to comply with all other applicable provisions, including but not limited to illicit discharge provisions.~~

~~A phased development plan shall be deemed approved prior to the effective date of this Ordinance if it has been approved by all necessary government units, it remains valid, unexpired, unrevoked and not otherwise terminated, and it shows:~~

- ~~1. For the initial or first phase of development, the type and intensity of use for a specific parcel or parcels, including at a minimum, the boundaries of the project and a subdivision plan that has been approved.~~
- ~~2. For any subsequent phase of development, sufficient detail so that implementation of the requirements of this Ordinance to that phase of development would require a material change in that phase of the plan.~~

(C) Violations Continue

Any violation of provisions existing on the effective date of this Ordinance shall continue to be a violation under this Ordinance and be subject to penalties and enforcement under this Ordinance unless the use, *development*, construction, or other activity complies with the provisions of this Ordinance.

Commented [TS8]: Is it exempt from ordinance or the prior existing ordinance applies?

Commented [BAF9R8]: The 2007 Ordinance was the first ordinance, there are no previous ordinances

SECTION 2: ADMINISTRATION AND PROCEDURES

159.201 REVIEW AND DECISION-MAKING ENTITIES

(A) Stormwater Administrator

(1) Designation

The Stormwater Administrator shall be the City of Monroe Engineering Director or his/~~her~~ designee who shall be responsible for administering and enforcing this Ordinance.

(2) Powers and Duties

In addition to the powers and duties that may be conferred by other provisions of the City of Monroe Code of Ordinances and other laws, the Stormwater Administrator shall have the following powers and duties under this Ordinance:

- a. To review and approve, approve with conditions, or disapprove applications for approval of plans pursuant to this Ordinance.
- b. To make determinations and render interpretations of this Ordinance.
- c. To establish application requirements and schedules for submittal and review of applications and appeals, to review and make recommendations to the City of Monroe on applications for *development* or *redevelopment* approvals.
- d. To enforce the provisions of this Ordinance in accordance with its enforcement provisions.
- e. To maintain records, maps, forms and other official materials as related to the adoption, amendment, enforcement, and administration of this Ordinance.
- f. To provide expertise and technical assistance to the City Council and the ~~Public Enterprise Water Resources~~ Committee upon request.
- g. To designate appropriate other person(s) who shall carry out the powers and duties of the Stormwater Administrator.
- h. To take any other action necessary to administer the provisions of this Ordinance.

159.202 REVIEW PROCEDURES

(A) Permit Required; Must Apply for Permit

A stormwater permit is required for all *development* and *redevelopment* unless exempt pursuant to this Ordinance. A permit may only be issued subsequent to a properly submitted and reviewed permit application, pursuant to this section.

(B) Effect of Permit

A stormwater permit shall govern the design, installation, and construction of stormwater management and control practices on the site, including *structural BMPSCMs* and elements of site design for stormwater management other than *structural BMPSCMs*.

The permit is intended to provide a mechanism for the review, approval, and inspection of the approach to be used for the management and control of stormwater for the *development* or *redevelopment* site consistent with the requirements of this Ordinance, whether the approach consists of *structural BMPSCMs* or other techniques such as low-impact or low-density design. The permit does not continue in existence indefinitely after the completion of the project; rather, compliance after project construction is assured by the maintenance provisions of this Ordinance.

(C) Authority to File Applications

All applications required pursuant to this Code shall be submitted to the Stormwater Administrator by the land *owner* or the land *owner's* duly authorized agent.

(D) Establishment of Application Requirements, Schedule, and Fees

i. Application Contents and Form

The Stormwater Administrator shall establish requirements for the content and form of all applications and shall amend and update those requirements from time to time. At a minimum, the stormwater permit application shall describe in detail how post-*development* stormwater runoff will be controlled and managed, the design of all stormwater facilities and practices, and how the proposed project will meet the requirements of this Ordinance.

ii. Submission Schedule

The Stormwater Administrator shall establish a submission schedule for applications. The schedule shall establish deadlines by which complete applications must be submitted for the purpose of ensuring that there is adequate time to review applications; and that the various stages in the review process are accommodated.

iii. Fees Required

Applications for stormwater permit approval, use of city- owned/maintained stormwater control systems, inspections related to the initial approval of stormwater control systems, and annual inspections of stormwater control systems and development sites shall be subject to any and all relevant fees as adopted by the City Council and prescribed in the City of Monroe Code of Ordinances and Fee Schedule. -Application fees shall accompany any application, otherwise the application shall be determined incomplete and shall be returned to the applicant.

iv. Administrative Manual

For applications required under this Code, the Stormwater Administrator shall compile the application requirements, submission schedule, fee schedule, a copy of this Ordinance, and information on how and where to obtain the [Stormwater](#) Design Manual in an Administrative Manual, which shall be made available to the public.

(E) Submittal of Complete Application

Applications shall be submitted to the Stormwater Administrator pursuant to the application submittal schedule in the form established by the Stormwater Administrator, along with the appropriate fee established pursuant to this section.

An application shall be considered as timely submitted only when it contains all elements of a complete application pursuant to this Ordinance, along with the appropriate fee. If the Stormwater Administrator finds that an application is incomplete, the applicant shall be notified of the deficient elements and shall be provided with an opportunity to submit a complete application. However, the submittal of an incomplete application shall not suffice to meet a deadline contained in the submission schedule established above.

(F) Review

Within thirty (30) calendar days after a complete application is submitted, the Stormwater Administrator shall review the application and determine whether the application complies with the standards of this Ordinance.

i. Approval

If the Stormwater Administrator finds that the application complies with the standards of this Ordinance, the Stormwater Administrator shall approve the application. The Stormwater Administrator may impose conditions of approval as needed to ensure compliance with this Ordinance. The conditions shall be included as part of the approval.

ii. Fails to Comply

If the Stormwater Administrator finds that the application fails to comply with the standards of this Ordinance, the Stormwater Administrator shall notify the applicant and shall indicate how the application fails to comply. The applicant shall have an opportunity to submit a revised application within six (6) months of notice of deficiency from the Administrator pursuant to NC GS 143-755(b).

Commented [TS10]: Statutes says if not respond within 6 months the application is no longer valid.

Commented [BAF11R10]: Understood; revision accepted

iii. Revision and Subsequent Review

A complete revised application shall be reviewed by the Stormwater Administrator within fifteen (15) calendar days after its re-submittal and shall be approved, ~~approved with conditions~~ or disapproved.

If a revised application is not re-submitted within ~~thirty-six (6) (30) calendar days-months~~ from the date the applicant was notified, the application shall be considered withdrawn, and a new submittal for the same or substantially the same project shall be required along with the appropriate fee for a new submittal.

Commented [TS12]: State statute provide for 6 months

Commented [BAF13R12]: Time revised

159.203 APPLICATIONS FOR APPROVAL

(A) Concept Plan and Consultation Meeting

Before a stormwater management permit application is submitted, the Stormwater Administrator or developer may request a consultation on a concept plan for the post-construction stormwater management system to be utilized in the proposed *development* project. This consultation meeting should take place at the time of the preliminary plan of subdivision or other early step in the *development* process. The purpose of this meeting is to discuss the post-construction stormwater management measures necessary for the proposed project, as well as to discuss and assess constraints, opportunities and potential approaches to stormwater management designs before formal site design engineering is commenced.

To accomplish this goal, the following information should be included in the concept plan, which should be submitted in advance of the meeting:

i. Existing Conditions/Proposed Site Plans

Existing conditions and proposed site layout sketch plans, which illustrate at a minimum: existing and proposed topography; perennial and intermittent streams; mapping of predominant soils from soil surveys (if available); boundaries of existing predominant vegetation; proposed limits of clearing and grading; and location of existing and proposed roads, buildings, parking areas and other impervious surfaces.

ii. Natural Resources Inventory

A written or graphic inventory of natural resources at the site and surrounding area as it exists prior to the commencement of the project. This description should include a discussion of soil conditions, forest cover, geologic features, topography, wetlands, and native vegetative areas on the site, as well as the location and boundaries of other natural feature protection and conservation areas such as lakes, ponds, floodplains, stream buffers and other setbacks (e.g., drinking water well setbacks, septic setbacks, etc.). Particular attention should be paid to environmentally sensitive features that provide particular opportunities or constraints for *development* and stormwater management.

iii. Stormwater Management System Concept Plan

A written or graphic concept plan of the proposed post-*development* stormwater management system including: preliminary selection and location of proposed structural stormwater controls; low-impact design elements; location of existing and proposed conveyance systems such as grass channels, swales, and storm drains; flow paths; location of floodplain/floodway limits; relationship of site to upstream and downstream properties and drainages; and preliminary location of any proposed stream channel modifications, such as bridge or culvert crossings.

(B) Stormwater Management Permit Application

The stormwater management permit application shall detail how post-*development* stormwater runoff will be controlled and managed and how the proposed project will meet the requirements of this Ordinance, including Section 3 “-Standards”. All such plans shall be prepared by a qualified registered North Carolina professional engineer, surveyor, soil scientist or landscape architect, and the engineer, surveyor, soil scientist or landscape architect shall perform services only in their area of competence, and shall verify that the design of all stormwater management facilities and practices meets the submittal requirements for complete applications, that the designs and plans are sufficient to comply with applicable standards and policies found in the *Stormwater Design Manual*, and that the designs and plans ensure compliance with this Ordinance.

The submittal shall include all of the information required in the submittal checklist established by the Stormwater Administrator. Incomplete submittals shall be treated pursuant to Section 159-202(D).

(C) As-Built Plans and Final Approval

Upon completion of a project, and before a certificate of occupancy shall be granted, the applicant shall certify that the completed project is in accordance with the approved stormwater management plans and designs, and shall submit actual “as built” plans for all stormwater management facilities or practices after final construction is completed. At the discretion of the stormwater administrator, performance securities or bonds may be required for stormwater management facilities or practices until as-built plans are approved.

The as-built plans shall show the final design specifications for all stormwater management facilities and practices and the field location, size, depth, and planted vegetation of all measures, controls, and devices, as installed. The designer of the stormwater management measures and plans shall certify, under seal, that the as-built stormwater measures, controls, and devices are in compliance with the approved stormwater management plans and designs and with the requirements of this Ordinance. As a condition of the as-built plans approval, a digital copy of the as-built plans as required by the City Standard Specifications and Detail manual shall be submitted to the Stormwater Administrator for the purpose of maintaining records, performing inspections, maintenance and other future needs as determined by the City.

A final inspection and approval by the Stormwater Administrator shall occur before the a project is determined to be in compliance with this ordinance and before release of any performance securities.

(D) Other Permits

No certificate of compliance or occupancy shall be issued by the City of Monroe Permitting Center without final as-built plans and a final inspection and approval by the Stormwater Administrator, except where multiple units are served by the stormwater practice or facilities, in which case the City of Monroe may elect to withhold a percentage of permits or certificates of occupancy until as-built plans are submitted and final inspection and approval has occurred.

159.204 PARTICIPATION IN A REGIONAL STORMWATER MANAGEMENT FACILITY

(A) Where Permitted

Where a regional stormwater management facility has been established by the City of Monroe, or by an authority operating with approval from the City of Monroe, a development may participate in said program in lieu of any certification of runoff control required by this article, provided that:

1. Runoff from the development drains to an existing public regional stormwater management facility approved by the City of Monroe;
2. Participation is in the form of contribution of funds, contribution of land, contribution of stormwater management facility construction work, or a combination of these, the total value of which shall be in accordance with fee schedule adopted by the City Council; and
3. The City finds that the stormwater management plan is in compliance with all other applicable requirements of this Ordinance.

(B) Use of Contributions

Each contribution from a development participating in a regional stormwater management facility shall be used for acquisition, design, construction or

maintenance of one (1) or more such facilities in the same watershed in which the development is located.

(C) Fees Required

Stormwater management control plan review, use of City-owned/ maintained stormwater control systems, inspections related to the initial approval of stormwater control systems, and annual inspections of stormwater control systems shall be subject to any and all relevant fees as adopted by City Council and prescribed in the City of Monroe Code of Ordinances and Fee Schedule. Plan review fees shall accompany the plans submitted for review, otherwise the plan submittal shall be determined incomplete and shall be returned to the applicant.

159.205 APPROVALS

(A) Effect of Approval

Approval authorizes the applicant to go forward with only the specific plans and activities authorized in the permit. The approval shall not be construed to exempt the applicant from obtaining other applicable approvals from local, state, and federal authorities.

(B) Time Limit/Expiration

An approved plan shall become null and void if the applicant fails to make *substantial progress* on the site within one year after the date of approval. The Stormwater Administrator may grant a single, one (1)-year extension of this time limit, for good cause shown, upon receiving a written request from the applicant before the expiration of the approved plan.

In granting an extension, the Stormwater Administrator may require compliance with standards adopted since the original application was submitted unless there has been substantial reliance on the original permit and the change in standards would infringe the applicant's vested rights.

159.206 APPEALS

(A) Right of Appeal

Any aggrieved person affected by any decision, order, requirement, or determination relating to the interpretation or application of this Ordinance made by the Stormwater Administrator, may file an appeal to the Board of Adjustment within thirty (30) days.

(B) Filing of Appeal and Procedures

The process and procedures for hearing appeals and variance requests, as outlined by in Chapter 1567, Zoning Code, shall apply to all requests for appeals or for a variance to any part of this Chapter. The Stormwater Administrator shall

transmit to the Board of Adjustment all documents constituting the record on which the decision appealed from was taken.

The hearing conducted by the Board of Adjustment shall be conducted in the nature of a quasi-judicial proceeding pursuant to the provisions of NC GS 160D-405 and 406 with all findings of fact supported by competent, material evidence.

(C) Review by Superior Court

Every decision of the Board of Adjustment shall be subject to Superior Court review by proceedings in the nature of certiorari. Petition for review by the Superior Court shall be filed with the Clerk of Superior Court within thirty (30) days, after the latter of the following:

~~(1) The decision of the Board of Adjustment is filed; or~~

~~(2) A written copy of the decision is delivered to every aggrieved party who has filed a written request for such copy with the Board of Adjustment at the time of its hearing of the case, of the effective date of the decision or as otherwise provided in 160D-1405(d).~~

SECTION 3: STANDARDS

159.301 GENERAL STANDARDS

All *development* and *redevelopment* to which this Ordinance applies shall comply with the standards of this section.

159.302 IMPERVIOUS SURFACE REQUIREMENTS

(A) Setback Requirement

All impervious surfaces, except for roads, paths, and water dependent structures, shall be located at least thirty-five (35) feet landward of all perennial and intermittent surface waters, measured from top of bank. Development approved in conjunction with a conditional zoning district or special use permit shall have an impervious surface setback of fifty (50) feet landward of all perennial or intermittent surface waters.

A perennial or intermittent surface water shall be deemed present if the feature is shown on either the most recent version of the soil survey map prepared by the Natural Resources Conservation Service of the United States Department of Agriculture (USDA) or the most recent complete version of the 1:24,000 scale (7.5 minute) quadrangle topographic maps prepared by the United States Geological Survey (USGS). An exception to this requirement may be allowed when surface waters are not present in accordance with the provisions of 15A NCAC 2B .0233 (3)(a) or similar site-specific determination made using *Division*-approved methodology.

(B) No new impervious or partially pervious surface in floodplain

For development activities, no new impervious or partially pervious surfaces, except for road crossings (public and private), paths, and water dependent structures, where no practical alternative exists shall be allowed within the floodplain.

(C) Development in Critical Area of Water Supply Watersheds

All development activities that are located within the area designated by the Environmental Management Commission as a Critical Area of a Water Supply Watershed (shown on the Stormwater Map), shall be limited to a maximum impervious surface density of thirty-six (36) percent. For purposes of the Stormwater Management Ordinance, the City is divided into the watershed districts described in Section (D).

In addition to those requirements set out herein, all provisions of the City Code of Ordinances Section 54.02 and all watershed regulations of the NC Division of Environmental Management shall apply.

(D) Watershed Districts

Commented [TS14]: What is this? Is this still Post Construction Ord? Below it talks about water supply water shed??

Commented [BAF15R14]: Design Standards Section, applies to Post construction SCM's; The Water supply shed designations are included because of 159.302 (C). It does seem to be an odd place to put this information, more like a Zoning requirement; The text could be revised as shown by comment below

Commented [BAF16]: Add reference to stormwater map; critical areas are shown on the map; added reference to Section D for clarity

Commented [BAF17]: Moved from Section 159.808 in the Floodplain section to be in Stormwater management section

The following districts are hereby established as zoning overlay districts and shall be in place and are depicted on the city's official zoning map:

- (1) WS-III-CA (Critical Area) Overlay District.
- (2) WS-III-BW (Balance of Watershed) Overlay District.
- (3) WS-IV-CA (Critical Area) Overlay District.
- (4) WS-IV-PA (Protected Area) Overlay District

159.3030 DEVELOPMENT STANDARDS FOR LOW DENSITY PROJECTS

Any drainage area within a project is considered low density when said drainage area has less than or equal to 24% built upon area, as determined by the methodology established in the *Stormwater Design Manual*. Such low-density projects shall comply with each of the following standards.

- (A) Vegetated Conveyances. Storm water runoff from the development shall be transported from the development by vegetated conveyances to the maximum extent practicable.
- (B) Property Usage Restrictions. The approval of the stormwater permit shall require enforceable restrictions on property usage that runs with the land, including recorded deed restrictions and protective covenants, to ensure that future development and redevelopment maintains the site consistent with the approved project plans.

159.3031 DEVELOPMENT STANDARDS FOR HIGH DENSITY PROJECTS

159.3030 STRUCTURAL STORMWATER CONTROL REQUIREMENTS

Owners of property subject to this Ordinance and required to install structural stormwater control measures shall implement those measures in compliance with each of the following standards: Any drainage area within a project is considered high density when said drainage area has greater than or equal to 24% built upon area, as determined by the methodology established in the *Stormwater Design Manual*. Such high-density projects shall implement storm water treatment systems that comply with each of the following standards:

- (A) Stormwater Quality Treatment Volume. The measures shall control and treat runoff from the first inch of rain. ~~Runoff volume drawdown time for wet detention ponds shall be a minimum of 48 hours, but not more than 120 hours.~~
- (B) Stormwater Quality Treatment. All structural stormwater treatment systems used to meet these requirements shall be designed ~~to in accordance with~~ have a minimum of 85% average annual removal for remove nutrients- the applicable device specific Minimum Design Criteria (MDC) Total Suspended Solids (TSS) as required by the *Stormwater Design Manual*;

- (C) Stormwater Treatment System Design. General engineering design criteria for all projects shall be in accordance with 15A NCAC 2H .1008(c), as explained in the Stormwater Design Manual;
- (D) Stormwater Volume Control. The measure shall discharge the 1-year, 24-hour storage volume at a rate equal or less than the pre-development discharge rate. for the 1-year, 24-hour storm. Runoff volume drawdown time shall be a minimum of 24 hours, but not more than one hundred twenty (120) hours.
- (E) Storm Water Peak Control. The peak flow shall be controlled where applicable as described in Section 159.308. for the 2-year and 10-yr, 24-hr storms. The emergency overflow and outlet works for any pond or wetland constructed as a SCM shall be capable of safely passing a discharge with a minimum recurrence frequency as specified in the Stormwater Design Manual. For detention basins, the temporary storage capacity shall be restored within 72 hours. Requirements of the Dam Safety Act shall be met when applicable.
- (F) Property Usage Restrictions. The approval of the stormwater permit shall require enforceable restrictions on property usage that runs with the land, including recorded deed restrictions and protective covenants, to ensure that future *development and redevelopment* maintains the site consistent with the approved project plans.

159.304 ~~WATERSHED STREAM BUFFER REQUIREMENTS DISTRICTS.~~

Stream Buffers.

- (A) A 35-foot undisturbed vegetated buffer is required along all perennial and intermittent stream channels.
- (B) The buffer shall begin at the most landward limit of the top of bank or the most landward limit of the normal ponded water level and extend landward on perpendicularly.
- (C) Diffuse flow of runoff shall be maintained in the riparian buffer to the extent practicable.
- (D) Existing and ongoing uses shall be exempt.
- (E) Allowable uses within the buffer include bridges, dam maintenance, new stormwater facilities designed to control sediment and attenuate flow before being discharged through the road crossings and temporary sediment and erosion control devices.-

159.304 ~~RESERVED~~

Commented [BAF18]: Moved from the end of the Floodplain Section 159.807 to this reserved section

159.305 STANDARDS FOR STORMWATER CONTROL MEASURES

(A) Evaluation According to Contents of Stormwater Design Manual

All stormwater control measures and stormwater treatment practices (also referred to as Best Management Practices, or BMPSCMs) required under this Ordinance shall be evaluated by the Stormwater Administrator according to the policies, criteria, and information, including technical specifications and standards and the specific design criteria for each stormwater practice, in the Stormwater Design Manual. The Stormwater Administrator shall determine whether proposed BMPSCMs will be adequate to meet the requirements of this Ordinance.

(B) Determination of Adequacy; Presumptions and Alternatives

Stormwater treatment practices that are designed, constructed, and maintained in accordance with the criteria and specifications in the Stormwater Design Manual will be presumed to meet the minimum water quality and quantity performance standards of this Ordinance. Whenever an applicant proposes to utilize a practice or practices not designed and constructed in accordance with the criteria and specifications in the Stormwater Design Manual, the applicant shall have the burden of demonstrating that the practice(s) will satisfy the minimum water quality and quantity performance standards of this Ordinance. The Stormwater Administrator may require the applicant to provide the documentation, calculations, and examples necessary for the Stormwater Administrator to determine whether such an affirmative showing is made.

(C) Separation from Seasonal High Water Table

For BMPSCMs that require a separation from the seasonal high water table, the separation shall ~~be provided~~meet conform to by at least 12 inches of naturally occurring soil above the seasonal high water table the applicable device specific as specified by the MDC as required by the Stormwater Design Manual. of the Stormwater practice.

159.306 DEDICATION OF BMPSCMS, FACILITIES & IMPROVEMENTS

The City of Monroe may accept dedication of any existing or future stormwater management facility for maintenance, provided such facility meets all the requirements of this Ordinance and includes adequate and perpetual access and sufficient area, by easement or otherwise, for inspection and regular maintenance. Decision to accept dedication shall be based on formal action of the Monroe City Council at their sole discretion.

159.307 VARIANCES

(A) Any person may petition the City of Monroe for a variance heard by the Monroe Board of Adjustment pursuant to the provisions of NC GS 160D-405 and 406 granting permission to use the person's land in a manner otherwise prohibited by this Ordinance. To qualify for a variance, the petitioner must show all of the following:

- (1) Unnecessary hardships would result from strict application of this Ordinance.
- (2) The hardships result from conditions that are peculiar to the property, such as the location, size, or topography of the property.
- (3) The hardships did not result from actions taken by the petitioner.
- (4) The requested variance is consistent with the spirit, purpose, and intent of this Ordinance; will secure public safety and welfare; and will preserve substantial justice.

(B) The City of Monroe may impose reasonable and appropriate conditions and safeguards upon any variance it grants.

(C) Statutory exceptions

Notwithstanding ~~subdivision-subsection~~ (A) of this section, exceptions from the thirty-five- (35) foot landward location of built upon area requirement as well as the deed restrictions and protective covenants requirements shall be granted in any of the following instances:

(1) When there is a lack of practical alternatives for a road crossing, railroad crossing, bridge, airport facility, or utility crossing as long as it is located, designed, constructed, and maintained to minimize disturbance, provide maximum nutrient removal, protect against erosion and sedimentation, have the least adverse effects on aquatic life and habitat, and protect water quality to the maximum extent practicable through the use of [BMPSCMs](#).

(2) When there is a lack of practical alternatives for a stormwater management facility; a stormwater management pond; or a utility, including, but not limited to, water, sewer, or gas construction and maintenance corridor, as long as it is located fifteen(15) feet landward of all perennial and intermittent surface waters and as long as it is located, designed, constructed, and maintained to minimize disturbance, provide maximum nutrient removal, protect against erosion and sedimentation, have the least adverse effects on aquatic life and habitat, and protect water quality to the maximum extent practicable through the use of [BMPSCMs](#).

(3) A lack of practical alternatives may be shown by demonstrating that, considering the potential for a reduction in size, configuration, or density of the proposed activity and all alternative designs, the basic project purpose cannot be practically accomplished in a manner which would avoid or result in less adverse impact to surface waters.

**159.308 ~~ADDITIONAL WATER QUANTITY~~ STORMWATER PEAK FLOW
CONTROL STANDARDS**

(A) Applicability

This section applies to the following type developments or redevelopments:

(1) All non-residential sites containing new development and/or redevelopment including road construction, grading, paving, gravel placement, and construction of buildings and other structures, which include the creation of 20,000 square feet or more of new impervious area, within the corporate limits and the extraterritorial jurisdiction of the City of Monroe. Impervious areas in existence prior to the effective date of this Ordinance shall not be included in the computation of impervious area; and

(2) All ~~new~~ **high-density** residential development and/or redevelopment. ~~meeting the following requirements:~~

~~(1) Exceeds one (1) dwelling units per acre;~~

~~(2) Provides for private or public street/driveway construction for access to multiple lots;~~

~~(3) Requires engineered stormwater control structures as outlined by this Ordinance.~~

Exemption: Properties that directly abut regulated floodways as designated by the Federal Emergency Management Agency shall be considered exempt from requirements of this Section.

(B) General Requirements

(1) The engineer or landscape architect of record shall conduct hydrologic and hydraulic engineering studies for the site for both pre-development and post-development conditions. The engineer or landscape architect of record shall provide a certification that the development or redevelopment will not cause increased off-site flooding, drainage, or erosion problems

(2) Where it is determined that the development of the site does increase the peak discharge rate, stormwater quantity control improvements must be implemented. The stormwater quantity control improvements must limit the two (2)-year and ten (10)-year post-development peak discharge rates to pre-development peak discharge rates, to minimize flooding, drainage, and erosion problems. These improvements may consist of nonstructural approaches such as natural swales, depressions in the land and other natural approaches, or structural approaches such as detention structures (wet and dry basins), extended detention facilities and alternative best management practices (BMPSCMs) with provisions for stormwater quantity control. [The emergency overflow and outlet works for any pond or wetland constructed as a SCM shall be capable of safely passing a discharge with a minimum recurrence frequency as specified in the Stormwater Design Manual. Requirements of the Dam Safety Act shall be met when applicable.](#) A combination of nonstructural and structural approaches is encouraged.

(3) For stormwater management improvements proposed to achieve compliance with quantity control requirements of this section, a hydrologic-hydraulic analysis of the site drainage system in the pre-development condition and the post-development condition shall be performed. The analysis should be included with the stormwater management plan and should demonstrate that the

Commented [BAF19]: should minor subdivisions be exempt (say 4 lots or less)?

Commented [BAF20R19]: Consider low density options; water quality treatment only for small lots.....maybe do something like NCG01 example permits for COC

Commented [BF21]: From 15A NCAC 02H .1017 NPDES MS4 AND URBANIZING AREAS: POST-CONSTRUCTION REQUIREMENTS A project shall be considered a low density project if it meets the low density criteria set forth in Rule .1003(2) of this Section and contains no more than 24 percent built-upon area or no more than two dwelling units per acre; otherwise, a project shall be considered high density. Low density projects shall comply with the requirements set forth in Rule .1003(2) of this Section.

quantity control requirements stated in this section will be achieved by the proposed improvements. These improvements shall be subject to review and approval by the Stormwater Administrator.

(4) If site characteristics indicate that complying with the minimum stormwater management requirements of this section will not provide adequate engineering designs or protection for local residents, and downstream property, it shall be the site designer's responsibility to exceed the minimum requirements as necessary.

159.309 PERMANENT POND DAM EVALUATION

Commented [BAF22]: New Section Added for Dam Safety

- (A) All preliminary plats that include storm water runoff to any existing or proposed permanent ponds, shall be subject to the review of the State Dam Safety Engineer. An evaluation of the pond dam shall be made by the designer, in accordance with the Dam Safety Law of 1967, G.S. sections 143-215.23 through 143-215.37, and shall be submitted to the State Dam Safety Engineer for review.
- (B) All existing ponds shall be evaluated and rehabilitated as required to ensure the safety and stability of the facility, to include the following:
 - (1) Hydrologic and hydraulic analysis to ensure that the pond will safely withstand the 25-year storm with a minimum of one foot of freeboard at the dam **and safely pass the 100-year storm**. Design calculations shall include the assumption of future buildout of the drainage basin.
 - (2) Geotechnical investigations of the dam embankment to assess the condition of the embankment materials and foundation.
 - (3) Structural analysis to assess the stability and integrity of the dam embankment and make recommended repairs as required.

SECTION 4:
MAINTENANCE

159.401 GENERAL STANDARDS FOR MAINTENANCE

(A) Function of BMPSCMs As Intended

The *owner* of each *structural BMPSCM* installed pursuant to this Ordinance shall maintain and operate it so as to preserve and continue its function in controlling stormwater quality and quantity at the degree or amount of function for which the *structural BMPSCM* was designed.

(B) Annual Maintenance Inspection and Report

The person responsible for maintenance of any *structural BMPSCM* installed pursuant to this Ordinance shall submit to the Stormwater Administrator an inspection report **annually** from one of the following persons performing services only in their area of competence: a qualified registered North Carolina professional engineer, surveyor, landscape architect, soil scientist, aquatic biologist, or person certified by the North Carolina State University Cooperative

Extension Service for stormwater treatment practice inspection and maintenance. The inspection report shall contain all of the following:

- (1) The name and address of the land *owner*;
- (2) The recorded book and page number of the lot of each *structural BMPSCM*;
- (3) A statement that an inspection was made of all *structural BMPSCMs*;
- (4) The date the inspection was made;
- (5) A statement that all inspected *structural BMPSCMs* are performing properly and are in compliance with the terms and conditions of the approved maintenance agreement required by this Ordinance;
- (6) The original signature and seal of the engineer, surveyor, or landscape architect; and
- (7) A financial statement documenting the available funding established in the escrow account for operation and maintenance of the stormwater control and management facilities.

All inspection reports shall be on forms supplied by the Stormwater Administrator. An original inspection report shall be provided to the Stormwater Administrator beginning one year from the date of as-built certification and each year thereafter on or before the date of the as-built certification.

159.402 OPERATION AND MAINTENANCE AGREEMENT

(A) In general.

- (1) Prior to the conveyance or transfer of any lot or building site to be served by a structural SCM pursuant to this Ordinance, and prior to issuance of any permit for development or redevelopment requiring a structural SCM pursuant to this Ordinance, the applicant and owner of the site must execute an operation and maintenance agreement that shall be binding on all subsequent owners of the site, portions of the site, and lots or parcels served by the structural SCM. Until the transference of all property, sites, or lots served by the structural SCM, the original owner or applicant shall have primary responsibility for carrying out the provisions of the maintenance agreement.
- (2) The operation and maintenance agreement shall require the owner or owners to maintain, repair and, if necessary, reconstruct the structural SCM, and shall state the terms, conditions, and schedule of maintenance for the structural

Commented [23]: Terry has already updated this entire section (159-402)

Commented [BAF24R23]: This section is going before the Public Enterprise Committee In January 2025.

The "BMP" to "SCM" updates will still need to occur with this section with the full document updates (BMP was not changed in the 1/2025 document)

Commented [BAF25R23]: Replaced this section with the January 2025 adopted version, with striked BMP to show SCM

SCM. In addition, it shall grant to the City of Monroe a right of entry in the event that the Stormwater Administrator has reason to believe it has become necessary to inspect, monitor, maintain, repair, or reconstruct the structural SCM; however, in no case shall the right of entry, of itself, confer an obligation on the City of Monroe to assume responsibility for the structural SCM.

(3) The operation and maintenance agreement must be approved by the Stormwater Administrator prior to plan approval and shall be recorded with the county Register of Deeds. The deed book and page shall be referenced on all plats, including the final plat. A copy of the recorded maintenance agreement shall be given to the Stormwater Administrator within fourteen (14) days following its recordation.

(B) *Operation and Maintenance Agreements.*

A required Operation and Maintenance agreement shall include all of the following provisions:

(1) Acknowledgment that the owner or homeowners' association shall continuously operate and maintain the Stormwater control and management facilities.

(2) Upon acceptance of the structural SCM, the owner or homeowners' association shall establish and maintain a segregated escrow account held by the owner or homeowners' association to hold funds for the purpose of sediment removal, structural, biological or vegetative replacement, major repair, or reconstruction of the structural SCMs. The amount of the escrow account shall not exceed ten (10%) percent of the structural SCM project's original cost of construction as indicated by a sealed engineer's estimate. The owner or homeowners' association shall have a period of five (5) years from the time the structural SCM is accepted by the City to fully deposit escrow funds in the account, and shall deposit and retain in the account at least two (2%) percent of the project's original cost of construction annually for five years until fully funded. Once fully funded at ten (10%) of the engineer's estimated cost, that amount shall be retained and maintained in the segregated escrow account, and the owner or homeowners' association shall annually provide the City of Monroe verification of the amount held in the escrow account.

- (3) Granting to the City of Monroe a right of entry to inspect, and monitor the SCMs and the right of entry and access for sediment removal, structural, biological or vegetative replacement, major repair, or reconstruction of the structural SCMs upon failure of the owner to take necessary action after notice by the City and a reasonable opportunity to correct.
- (4) Allowing the City of Monroe to recover from the escrow account any and all costs the City of Monroe expends to maintain or repair the structural SCMs or to correct any operational deficiencies. Failure to pay the City of Monroe all of its expended costs, after forty-five (45) days' written notice, shall constitute a breach of the agreement. In case of a deficiency, the City of Monroe shall thereafter be entitled to bring an action against the owner or homeowners' association and its members to pay, or foreclose upon the lien hereby authorized by the agreement against the property, or both. Interest, collection costs, and attorney fees shall be added to the recovery.
- (5) A statement that this agreement shall not obligate the City of Monroe to maintain or repair any structural SCMs, and the City of Monroe shall not be liable to any person for the condition or operation of structural SCMs.
- (6) A statement that this agreement shall not in any way diminish, limit, or restrict the right of the City of Monroe to enforce any of its Ordinances as authorized by law.
- (7) A provision indemnifying and holding harmless the City of Monroe for any costs and injuries arising from or related to the structural SCM, unless the City of Monroe has agreed in writing to assume the maintenance responsibility for the SCM and has accepted dedication of any and all rights necessary to carry out that maintenance.
- (8) A provision that a financial statement shall be provided and included as part of the annual inspection report documenting the available funding established in the escrow account for operation and maintenance of the stormwater control and management facilities.

~~(A)~~ **In General**

~~Prior to the conveyance or transfer of any lot or building site to be served by a structural BMPSCM pursuant to this Ordinance, and prior to issuance of any permit for development or redevelopment requiring a structural BMPSCM~~

pursuant to this Ordinance, the applicant or *owner* of the site must execute an operation and maintenance agreement that shall be binding on all subsequent *owners* of the site, portions of the site, and lots or parcels served by the *structural BMPSCM*. Until the transference of all property, sites, or lots served by the *structural BMPSCM*, the original *owner* or applicant shall have primary responsibility for carrying out the provisions of the maintenance agreement.

The operation and maintenance agreement shall require the *owner* or *owners* to maintain, repair and, if necessary, reconstruct the *structural BMPSCM*, and shall state the terms, conditions, and schedule of maintenance for the *structural BMPSCM*. In addition, it shall grant to the City of Monroe a right of entry in the event that the Stormwater Administrator has reason to believe it has become necessary to inspect, monitor, maintain, repair, or reconstruct the *structural BMPSCM*; however, in no case shall the right of entry, of itself, confer an obligation on the City of Monroe to assume responsibility for the *structural BMPSCM*.

The operation and maintenance agreement must be approved by the Stormwater Administrator prior to plan approval, and it shall be referenced on the final plat and shall be recorded with the county Register of Deeds upon final plat approval by the City of Monroe. A copy of the recorded maintenance agreement shall be given to the Stormwater Administrator within fourteen (14) days following its recordation.

(B) — Special Requirement for Homeowners' and Other Associations

For all *structural BMPSCMs* required pursuant to this Ordinance and that are to be or are owned and maintained by a homeowners' association, property owners' association, or similar entity, the required operation and maintenance agreement shall include all of the following provisions:

- (1) — Acknowledgment that the association shall continuously operate and maintain the stormwater control and management facilities.
- (2) — Establishment of an escrow account, which can be spent solely for sediment removal, structural, biological or vegetative replacement, major repair, or reconstruction of the *structural BMPSCMs*. If *structural BMPSCMs* are not performing adequately or as intended or are not properly maintained, the City of Monroe, in its sole discretion, may remedy the situation, and in such instances the City of Monroe shall be fully reimbursed from the escrow account. Escrowed funds may be spent by the association for sediment removal, structural, biological or vegetative replacement, major repair, and reconstruction of the *structural BMPSCMs*, upon written notification to the City of Monroe.
- (3) — Both developer contribution and annual sinking funds shall fund the escrow account. Prior to plat recordation or issuance of construction permits, whichever shall first occur, the developer shall pay into the escrow account an amount equal to fifteen (15) per cent of the initial construction cost of the *structural BMPSCMs*. Two-thirds (2/3) of the total amount of sinking fund budget shall be deposited into the escrow

~~account within the first five (5) years and the full amount shall be deposited within ten (10) years following initial construction of the *structural BMPSCMs*. Funds shall be deposited each year into the escrow account. A portion of the annual assessments of the association shall include an allocation into the escrow account. Any funds drawn down from the escrow account shall be replaced in accordance with the schedule of anticipated work used to create the sinking fund budget.~~

- ~~(4) — The percent of developer contribution and lengths of time to fund the escrow account may be varied upon approval by the Monroe City Council based upon good cause shown.~~
- ~~(5) — Granting to the City of Monroe a right of entry to inspect, monitor, maintain, repair, and reconstruct *structural BMPSCMs*.~~
- ~~(6) — Allowing the City of Monroe to recover from the association and its members any and all costs the City of Monroe expends to maintain or repair the *structural BMPSCMs* or to correct any operational deficiencies. Failure to pay the City of Monroe all of its expended costs, after forty-five (45) days written notice, shall constitute a breach of the agreement. In case of a deficiency, the City of Monroe shall thereafter be entitled to bring an action against the association and its members to pay, or foreclose upon the lien hereby authorized by the agreement against the property, or both. Interest, collection costs, and attorney fees shall be added to the recovery.~~
- ~~(7) — A statement that this agreement shall not obligate the City of Monroe to maintain or repair any *structural BMPSCMs*, and the City of Monroe shall not be liable to any person for the condition or operation of *structural BMPSCMs*.~~
- ~~(8) — A statement that this agreement shall not in any way diminish, limit, or restrict the right of the City of Monroe to enforce any of its Ordinances as authorized by law.~~
- ~~(9) — A provision indemnifying and holding harmless the City of Monroe for any costs and injuries arising from or related to the *structural BMPSCM*, unless the City of Monroe has agreed in writing to assume the maintenance responsibility for the *BMPSCM* and has accepted dedication of any and all rights necessary to carry out that maintenance.~~
- ~~(10) — A provision that a financial statement shall be provided and included as part of the annual inspection report documenting the available funding established in the escrow account for operation and maintenance of the stormwater control and management facilities.~~

159.403 INSPECTION PROGRAM

Inspections and inspection programs by City of Monroe may be conducted or established on any reasonable basis, including but not limited to routine inspections; random inspections; inspections based upon complaints or other

notice of possible violations; and joint inspections with other agencies inspecting under environmental or safety laws. Inspections may include, but are not limited to, reviewing maintenance and repair records; sampling discharges, surface water, groundwater, and material or water in [BMPSCMs](#); and evaluating the condition of [BMPSCMs](#).

If the *owner* or occupant of any property refuses to permit such inspection, the Stormwater Administrator shall proceed to obtain an administrative search warrant pursuant to G.S. 15-27.2 or its successor. No person shall obstruct, hamper or interfere with the Stormwater Administrator while carrying out his or her official duties.

159.404 **PERFORMANCE SECURITY FOR INSTALLATION AND MAINTENANCE**

(A) *May be required.* The City of Monroe may, at its discretion, require the submittal of a performance security or bond with surety, cash escrow, letter of credit or other acceptable legal arrangement prior to issuance of a permit in order to ensure that the structural SCMs are installed by the permit holder as required by the approved Stormwater management plan.

(B) *Amount.*

(1) *Installation.* The amount of an installation performance security shall be the total estimated construction cost of the SCMs approved under the permit, plus 10%.

(2) *Maintenance.* The owner and applicant shall keep the property on which the SCM's are located reasonably maintained and in a fit and proper condition prior to being accepted by the City of Monroe.

(C) *Uses of performance security.*

(1) *Forfeiture provisions.* The performance security shall contain forfeiture provisions for failure, after proper notice, to complete work within the time specified, or to initiate or maintain any actions which may be required of the applicant or owner in accordance with this Ordinance, approvals issued pursuant to this Ordinance, or an operation and maintenance agreement established pursuant to this Ordinance.

(2) *Default.* Upon default of the owner to construct, maintain, repair and, if necessary, reconstruct any structural SCM in accordance with the applicable permit or operation and maintenance agreement, the Stormwater Administrator shall

Commented [26]: Section already updated with Terry.

Commented [BAF27R26]: Going to Public Enterprise Committee 1/2025

Commented [BAF28R26]: Remove this section and replace with the January 2025 version; then show strike thru for BMP to SCM

obtain and use all or any portion of the security to make necessary improvements based on an engineering estimate. Such expenditure of funds shall only be made after requesting the owner to comply with the permit or maintenance agreement.

(3) Costs in excess of performance security. If the City of Monroe takes action upon such failure by the applicant and owner, the City of Monroe may collect from the applicant and owner the difference between the amount of the reasonable cost of such action in addition to any other penalties or damages due to the City of Monroe.

(4) Refund. Within sixty days of acceptance by the City, the installation performance security shall be refunded to the applicant or terminated.

(A) ~~May Be Required~~

~~The City of Monroe may, at its discretion, require the submittal of a performance security or bond with surety, cash escrow, letter of credit or other acceptable legal arrangement prior to issuance of a permit in order to ensure that the *structural BMPSCMs* are:~~

~~(1) Installed by the permit holder as required by the approved stormwater management plan; and/or~~

~~(2) Maintained by the *owner* as required by the operation and maintenance agreement.~~

(B) ~~Amount~~

(1) ~~Installation~~

~~The amount of an installation performance security shall be the total estimated construction cost of the *BMPSCMs* approved under the permit, plus 10%.~~

(2) ~~Maintenance~~

~~The amount of a maintenance performance security shall be the present value of an annuity of perpetual duration based on a reasonable estimate of the annual cost of inspection, operation and maintenance of the *BMPSCMs* approved under the permit, at a discount rate that reflects the jurisdiction's cost of borrowing, minus a reasonable estimate of long-term inflation.~~

(C) — Uses of Performance Security

(1) Forfeiture Provisions

The performance security shall contain forfeiture provisions for failure, after proper notice, to complete work within the time specified, or to initiate or maintain any actions which may be required of the applicant or *owner* in accordance with this Ordinance, approvals issued pursuant to this Ordinance, or an operation and maintenance agreement established pursuant to this Ordinance.

(2) Default

Upon default of the *owner* to construct, maintain, repair and, if necessary, reconstruct any *structural BMPSCM* in accordance with the applicable permit or operation and maintenance agreement, the Stormwater Administrator shall obtain and use all or any portion of the security to make necessary improvements based on an engineering estimate. Such expenditure of funds shall only be made after requesting the *owner* to comply with the permit or maintenance agreement. In the event of a default triggering the use of installation performance security, the City of Monroe shall not return any of the unused deposited cash funds or other security, which shall be retained for maintenance.

(3) Costs in Excess of Performance Security

If the City of Monroe takes action upon such failure by the applicant or *owner*, the City of Monroe may collect from the applicant or *owner* the difference between the amount of the reasonable cost of such action and the amount of the security held, in addition to any other penalties or damages due.

(4) Refund

Within sixty days of the final approval, the installation performance security shall be refunded to the applicant or terminated, except any amount attributable to the cost (plus 10%) of landscaping installation and ongoing maintenance associated with the BMPSCMs covered by the security. Any such landscaping shall be inspected one (1) year after installation with replacement for compliance with the approved plans and specifications and, if in compliance, the portion of the financial security attributable to landscaping shall be released.

159.405 NOTICE TO OWNERS

(A) Deed Recordation and Indications On Plat

The applicable operations and maintenance agreement or dedication and acceptance into public maintenance pertaining to every *structural BMPSCM* shall be referenced on the final plat and shall be recorded with the county

Register of Deeds upon final plat approval. If no subdivision plat is recorded for the site, then the operations and maintenance agreement or dedication and acceptance into public maintenance shall be recorded with the county Register of Deeds so as to appear in the chain of title of all subsequent purchasers under generally accepted searching principles.

(B) Signage

Where appropriate, to assure compliance with this Ordinance, *structural BMPSCMs* shall be posted with a conspicuous sign stating who is responsible for required maintenance and annual inspection. The sign shall be maintained so as to remain visible and legible.

159.406 RECORDS OF INSTALLATION AND MAINTENANCE ACTIVITIES

The *owner* of each *structural BMPSCM* shall keep records of inspections, maintenance, and repairs for at least five years from the date of creation of the record and shall submit the same upon reasonable request to the Stormwater Administrator.

159.407 NUISANCE

The *owner* of each stormwater *BMPSCM*, whether *structural* or *non-structural BMPSCM*, shall maintain it so as not to create or result in a nuisance condition.

SECTION 5: ENFORCEMENT AND VIOLATIONS

159.501 GENERAL

(A) Authority to Enforce

The provisions of this Ordinance shall be enforced by the Stormwater Administrator, his or her designee, or any authorized agent of City of Monroe. Whenever this section refers to the Stormwater Administrator, it includes his or her designee as well as any authorized agent of City of Monroe.

(B) Violation Unlawful

Any failure to comply with an applicable requirement, prohibition, standard, or limitation imposed by this Ordinance, or the terms or conditions of any permit or other *development* or *redevelopment* approval or authorization granted pursuant to this Ordinance, is unlawful and shall constitute a violation of this Ordinance.

(C) Each Day a Separate Offense

Each day that a violation continues shall constitute a separate and distinct violation or offense.

(D) Responsible Persons/Entities

Any person who erects, constructs, reconstructs, alters (whether actively or passively), or fails to erect, construct, reconstruct, alter, repair or maintain any structure, BMPSCM, practice, or condition in violation of this Ordinance shall be subject to the remedies, penalties, and/or enforcement actions in accordance with this section. Persons subject to the remedies and penalties set forth herein may include any owner, tenant or occupant, or any other person who has control over, or responsibility for, the use or development of the property on which the violation occurs; such person -may also include any architect, engineer, builder, contractor, developer, agency, or any other person who participates in, assists, directs, creates, causes, or maintains a condition that results in or constitutes a violation of this Ordinance, or fails to take appropriate action, so that a violation of this Ordinance results or persists. ~~or an owner, any tenant or occupant, or any other person, who has control over, or responsibility for, the use or development of the property on which the violation occurs.~~

For the purposes of this article, responsible person(s) shall include but not be limited to:

(1) Person Maintaining Condition Resulting In or Constituting Violation

An architect, engineer, builder, contractor, developer, agency, or any other person who participates in, assists, directs, creates, causes, or maintains a condition that constitutes a violation of this Ordinance, or fails to take appropriate action, so that a violation of this Ordinance results or persists.

Commented [TS29]: This should go before other persons above
Commented [BAF30R29]: revised

(2) Responsibility For Land or Use of Land

The *owner* of the land on which the violation occurs, any tenant or occupant of the property, any person who is responsible for stormwater controls or practices pursuant to a private agreement or public document, or any person, who has control over, or responsibility for, the use, *development* or *redevelopment* of the property.

159.502 REMEDIES AND PENALTIES

The remedies and penalties provided for violations of this Ordinance, whether civil or criminal, shall be cumulative and in addition to any other remedy provided by law, and may be exercised in any order.

(A) Remedies

(1) Withholding of Certificate of Occupancy

The Stormwater Administrator or other authorized agent may refuse to issue a certificate of occupancy for the building or other improvements constructed or being constructed on the site and served by the stormwater practices in question until the applicant or other responsible person has taken the remedial measures set forth in the notice of violation or has otherwise cured the violations described therein.

(2) Disapproval of Subsequent Permits and Development Approvals

As long as a violation of this Ordinance continues and remains uncorrected, the Stormwater Administrator or other issuing authority may withhold, and may disapprove, any request for permit or *development* approval or authorization requested for the land on which the violation occurs.

(3) Injunction, Abatements, etc.

The Stormwater Administrator, ~~in conjunction with the Monroe City Attorney's Office with the written authorization of the City Council,~~ may institute an action in a court of competent jurisdiction for a mandatory or prohibitory injunction and order of abatement to correct a violation of this Ordinance. Any person violating this Ordinance shall be subject to the full range of equitable remedies provided in the General Statutes or at common law.

(4) Correction as Public Health Nuisance, Costs as Lien, etc.

If the violation is deemed dangerous or prejudicial to the public health or public safety and is within the geographic limits prescribed by North Carolina G.S. § 160A-193, the Stormwater Administrator, ~~in conjunction with the Monroe City Attorney's Office with the written authorization of the City Council,~~ may cause the violation to be corrected and the costs to be assessed as a lien against the property.

(5) Stop Work Order

The Stormwater Administrator may issue a stop work order to the person(s) violating this Ordinance. The stop work order shall remain in effect until the person has taken the remedial measures set forth in the notice of violation or has otherwise cured the violation or violations described therein. The stop work order may be withdrawn or modified to enable the person to take the necessary remedial measures to cure such violation or violations.

(6) Restoration of Areas Affected by Failure to Comply

By issuance of an order of restoration, the Storm Water Administrator may require a Person(s) who engaged in a land development activity and failed to comply with this ordinance to take such remedial actions needed to minimize the detrimental effects of the resulting pollution. This authority is in addition to any other civil penalty or injunctive relief authorized under this ordinance.

Commented [BAF31]: New section; copied from Indian Trail

Commented [TS32]: Not sure this is authorized by statute but will look into it.
Revised per discussion

(B) Civil Penalties

Any Person who conducts an act or action, allows directly or indirectly, acts in concert with, participates, directs, or assists directly or indirectly in the creation of a Violation of this Ordinance is subject to a civil penalty.

Commented [BAF33]: The first paragraph and items 1-4 have been copied directly from the Illicit Discharge Ordinance

- (1) A civil penalty may be assessed for the time period from the date the Violation first occurs until the date that the Violation ceases, as verified by the City. Refusal to accept the notice shall not relieve the Violator of the obligation to pay such penalty.
- (2) Payment of a civil penalty does not relieve the Violator of the obligation to correct the violation.
- (3) Upon failure of a Violator to correct a violation within the time period stated in a Notice of Violation, each day's continuing violation thereafter shall constitute a separate and distinct offense for the purpose of assessing a civil penalty. The maximum civil penalty for each violation of this Ordinance shall be \$1,000 per day and/or \$30,000 total.
- (4) In determining the amount of the penalty, the City shall consider the degree and extent of harm to the environment, public health and public and private property; the cost of remedying the damage; the duration of the violation; whether the violation was intentional; the prior record of the Person responsible for the violation in complying with this Ordinance; the City's enforcement costs, and the amount of money saved by the violator through his, her or its noncompliance.
- (5) Civil penalties may be assessed up to the full amount of penalty to which the City of Monroe is subject for violations of its National Pollutant Discharge Elimination System (NPDES) Permit.

(6) Penalties may be assessed concurrently with a Notice of Violation that details the civil penalties, their accrual period, and the payment deadline if any of the following occur:

- (a) Failure to submit a storm water management plan.
- (b) Conducting land disturbing activities without an approved plan.
- (c) Failure to install or maintain best management practices per the approved plan.
- (d) Repeating a violation on the same project by the same responsible party.
- (e) Obstructing an authorized representative performing official duties.
- (f) Willful violation of this ordinance.

Commented [BAF34]: Item 6 Concurrent penalties kept from the Indian Trail example
Staff will need to create a ranking scale for the particular violations, as was done with the Illicit discharge ordinance

(C) Criminal Penalties

~~Any person that has violated or continues to violate this Ordinance shall be liable to criminal prosecution to the fullest extent of the law, and shall be subject to a criminal penalty of not less than \$50.00 nor more than \$500.00 dollars per violation per day and/or imprisonment for a period of time not to exceed 20 days. The authorized enforcement agency may recover all attorney's fees, court costs and other expenses associated with enforcement of this Ordinance, including sampling and monitoring expenses. Violation of this ordinance may be enforced as a misdemeanor subject to the maximum fine permissible under North Carolina law.~~

Commented [TS35]: Should enforce criminally or civilly, but not either or.

Commented [BAF36R35]: Section C removed

159.503 PROCEDURES FOR INSPECTIONS AND INVESTIGATIONS

(A) Initiation/Complaint

Whenever a violation of this Ordinance occurs, or is alleged to have occurred, any person may file a written complaint. Such complaint shall state fully the alleged violation and the basis thereof, and shall be filed with the Stormwater Administrator, who shall record the complaint. The complaint shall be investigated promptly by the Stormwater Administrator.

(B) Inspection

~~Upon presenting proper credentials, the Stormwater Administrator may enter any land, building, or premises—public or private—to inspect for compliance with this ordinance. The Administrator is empowered to conduct necessary investigations, perform inspections at reasonable times, and require written statements or sworn reports. By applying for or receiving a stormwater permit, the owner grants limited access for these purposes. The Stormwater Administrator shall have the authority, upon presentation of proper credentials, to enter and inspect any land, building, structure, or premises to ensure compliance with this Ordinance.~~

(C) Notice of Violation and Order to Correct

When the Stormwater Administrator finds that any building, structure, or land is in violation of this Ordinance, the Stormwater Administrator shall issue a Notice of Violation to the property owner or other responsible

persons/entities violating this Ordinance. The notification shall indicate the nature of the violation, contain the address or other description of the site upon which the violation is occurring, order the necessary action to abate the violation, and give a deadline for correcting the violation. If civil penalties are to be assessed, the notice of civil penalties or Notice of Violation shall also contain a statement of the civil penalties to be assessed, the time of their accrual, and the time within which they must be paid or be subject to collection as a debt.

The Stormwater Administrator may deliver the notice of violation and correction order personally, by the Monroe Police Department, by certified or registered mail, return receipt requested, or by any means authorized for the service of documents by Rule 4 of the North Carolina Rules of Civil Procedure.

If a violation is not corrected within a reasonable period of time, as provided in the notification, the Stormwater Administrator may take appropriate action under this Ordinance to correct and abate the violation and to ensure compliance with this Ordinance.

The Stormwater Administrator, within their professional discretion, may issue a written warning that specifies the violation and requires prompt investigation and resolution within the stated period. This warning does not relieve the violator of liability for offenses committed before or after its issuance, nor does it limit the City's authority to take further enforcement action, including emergency measures.

Commented [BAF37]: A Warning section added, copied /modified from Illicit discharge ordinance

(D) Extension of Time

A person who receives a notice of violation and correction order, or the *owner* of the land on which the violation occurs, may submit to the Stormwater Administrator a written request for an extension of time for correction of the violation. On determining that the request includes enough information to show that the violation cannot be corrected within the specified time limit for reasons beyond the control of the person requesting the extension, the Stormwater Administrator may extend the time limit as is reasonably necessary to allow timely correction of the violation, up to, but not exceeding 30 days. The Stormwater Administrator may grant thirty (30) -day extensions in addition to the foregoing extension if the violation cannot be corrected within the permitted time due to circumstances beyond the control of the person violating this Ordinance. The Stormwater Administrator may grant an extension only by written notice of extension. The notice of extension shall state the date prior to which correction must be made, after which the violator will be subject to the penalties described in the notice of violation and correction order.

(E) Enforcement After Time to Correct

After the time has expired to correct a violation, including any extension(s) if authorized by the Stormwater Administrator, the Stormwater Administrator shall determine if the violation is corrected. If the violation is not corrected, the Stormwater Administrator may act to impose one or more of the remedies and penalties authorized by this Ordinance.

(F) Emergency Enforcement

If delay in correcting a violation would seriously threaten the effective enforcement of this Ordinance or pose an immediate danger to the public health, safety, or welfare, then the Stormwater Administrator may order the immediate cessation of a violation. Any person so ordered shall cease any violation immediately. The Stormwater Administrator may seek immediate enforcement, without prior written notice, through any remedy or penalty authorized by this article.

SECTION 6: DEFINITIONS

159.601 TERMS DEFINED

When used in this Ordinance, the following words and terms shall have the meaning set forth in this section, unless other provisions of this Ordinance specifically indicate otherwise.

Built-upon area (BUA)

That portion of a *development* project that is covered by impervious or partially impervious surface including, but not limited to, buildings; pavement and gravel areas such as roads, parking lots, and paths; and recreation facilities such as tennis courts. “Built-upon area” does not include a wooden slatted deck, the water area of a swimming pool, or pervious or partially pervious paving material to the extent that the paving material absorbs water or allows water to infiltrate through the paving material.

Department

The North Carolina Department of Environment and Natural Resources.

Stormwater Design Manual

The stormwater design manual approved for use in Phase II jurisdictions by the North Carolina Department of Environmental ~~Quality and Natural Resources~~ for the proper implementation of the requirements of the Federal Phase II stormwater program. All references herein to the ~~Stormwater Design Manual~~ are to the latest published edition or revision. The *Stormwater Design Manual* is not part of the City of Monroe Standard Specifications and Detail Manual.

Development

Any land-disturbing activity that increases the amount of *built upon area* or that otherwise decreases the infiltration of precipitation into the soil.

Division

The Division of Water Quality in the *Department*.

Floodplain

The one percent Annual Chance Floodplain as delineated by the North Carolina Floodplain Mapping Program in the Division of Emergency Management.

Larger common plan of development or sale

Any area where multiple separate and distinct construction or land-disturbing activities will occur under one plan. A plan is any announcement or piece of documentation (including but not limited to a sign, public notice or hearing, sales pitch, advertisement, loan application, drawing, permit application, zoning request, or computer design) or physical demarcation (including but not limited to boundary signs, lot stakes, or surveyor markings) indicating that construction activities may occur on a specific plot.

1-year, 24-hour storm

The surface runoff resulting from a 24-hour rainfall of an intensity expected to be equaled or exceeded, on average, once in 12 months and with a duration of 24 hours.

Owner

The legal or beneficial owner of land, including but not limited to a mortgagee or vendee in possession, receiver, executor, trustee, or long-term or commercial lessee, or any other person or entity holding proprietary rights in the property or having legal power of management and control of the property. "Owner" shall include long-term commercial tenants; management entities, such as those charged with or engaged in the management of properties for profit; and every person or entity having joint ownership of the property. A secured lender not in possession of the property does not constitute an owner, unless the secured lender is included within the meaning of "owner" under another description in this definition, such as a management entity.

Redevelopment

Any *development* on previously-developed land, other than a rebuilding activity that results in no net increase in *built-upon area* and provides equal or greater stormwater control than the previous *development*.

Structural BMPSCM Stormwater Control Measure (SCM)

A physical device designed to trap, settle out, or filter pollutants from stormwater runoff; to alter or reduce stormwater runoff velocity, amount, timing, or other characteristics; to approximate the *pre-development* hydrology on a developed site; or to achieve any combination of these goals. Structural BMPSCM includes physical practices such as constructed wetlands, vegetative practices, filter strips, grassed swales, and other methods installed or created on real property. "Structural BMPSCM" is synonymous with "structural practice," "stormwater control facility," "stormwater control practice," "stormwater treatment practice," "stormwater management practice," "stormwater control measures," "structural stormwater treatment systems," "best management practice (BMP)," and similar terms used in this Ordinance.

Substantial progress

For the purposes of determining whether sufficient progress has been made on an approved plan, one or more of the following construction activities toward the completion of a site or subdivision plan shall occur: obtaining a grading permit and conducting grading activity on a continuous basis and not discontinued for more than thirty (30) days; or installation and approval of on-site infrastructure; or obtaining a building permit for the construction and approval of a building foundation. "Substantial progress" for purposes of determining whether an approved plan is null and void is not necessarily the same as "substantial expenditures" used for determining vested rights pursuant to applicable law.

**ORDINANCE TO AMEND CITY OF MONROE CODE OF ORDINANCES
TITLE XV: LAND USAGE
CHAPTER 159: STORMWATER MANAGEMENT ORDINANCE
O-2025-24**

**BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF MONROE THAT
TITLE XV: LAND USAGE OF THE CITY OF MONROE CODE OF
ORDINANCES BE AMENDED.**

**Section 1. Amend CHAPTER 159: STORMWATER MANAGEMENT
ORDINANCE as follows:**

SECTION 1: GENERAL PROVISIONS

159.101 TITLE

This Ordinance shall be known as “The Stormwater Management Ordinance,” hereinafter as “Ordinance,” and may be so cited.

159.102 AUTHORITY

The City Council is authorized to adopt this Ordinance pursuant to North Carolina law, including but not limited to Article 14, Section 5 of the Constitution of North Carolina; North Carolina General Statutes: Chapter 15-27.2. (Warrants to conduct inspections authorized by law), Chapter 143-214.5 (Water supply watershed protection), Chapter 143-214.7 (Stormwater runoff rules and programs) and rules promulgated by the Environmental Management Commission thereunder; Session Law 2006-246 (Phase II Stormwater Management); Chapter 160A, § 174, 175 & 185 (General ordinance-making power, Enforcement of ordinance & Emission of pollutants or contaminants.)

159.103 FINDINGS

It is hereby determined that:

Development and redevelopment alter the hydrologic response of local watersheds and increase stormwater runoff rates and volumes, flooding, soil erosion, stream channel erosion, nonpoint and point source pollution, and sediment transport and deposition, as well as reducing groundwater recharge;

These changes in stormwater runoff contribute to increased quantities of water-borne pollutants and alterations in hydrology that are harmful to public health and safety as well as to the natural environment;

These effects can be managed and minimized by applying proper design and well-planned controls to manage stormwater runoff from *development* sites.

Further, the Federal Water Pollution Control Act of 1972 (“Clean Water Act”) and federal Phase II Stormwater Rules promulgated under it, as well as rules of the North Carolina Environmental Management Commission promulgated in response to federal Phase II requirements, compel certain urbanized areas, including this jurisdiction, to adopt minimum stormwater controls such as those included in this Ordinance.

Therefore, the City Council establishes this set of water quality and quantity regulations to meet the requirements of state and federal law regarding control of stormwater runoff and discharge.

159.104 PURPOSE

(A) General

The purpose of this Ordinance is to protect, maintain and enhance the public health, safety, environment and general welfare by establishing minimum requirements and procedures to control the adverse effects of increased post-

development stormwater runoff and nonpoint source pollution associated with new *development* and *redevelopment* . It has been determined that proper management of construction-related and post-*development* stormwater runoff will minimize damage to public and private property and infrastructure; safeguard the public health, safety, and general welfare; and protect water and aquatic resources.

(B) Specific

This Ordinance seeks to meet its general purpose through the following specific objectives and means:

1. Establishing decision-making processes for *development* that protect the integrity of watersheds and preserve the health of water resources;
2. Requiring that new *development* and *redevelopment* maintain the pre-*development* hydrologic response in their post-*development* state as nearly as practicable for the applicable design storm to reduce flooding, stream bank erosion, nonpoint and point source pollution and increases in stream temperature, and to maintain the integrity of stream channels and aquatic habitats;
3. Establishing minimum post-*development* stormwater management standards and design criteria for the regulation and control of stormwater runoff quantity and quality;
4. Establishing design and review criteria for the construction, function, and use of structural Stormwater Control Measures (hereinafter SCMs) that may be used to meet the minimum post-*development* stormwater management standards;
5. Encouraging the use of better management and site design practices, such as the use of vegetated conveyances for stormwater and the preservation of greenspace, riparian buffers and other conservation areas to the maximum extent practicable;
6. Establishing provisions for the long-term responsibility for and maintenance of *structural and nonstructural* SCMs to ensure that they continue to function as designed, are maintained appropriately, and pose no threat to public safety;
7. Establishing administrative procedures for the submission, review, approval and disapproval of *stormwater management plans*, for the inspection of approved projects, and to assure appropriate long-term maintenance.
8. Coordinating site design plans that include open space and natural areas with the Unified Development Ordinance.

9. Controlling illicit discharges into the municipal separate stormwater system in conjunction with the Stormwater Illicit Discharge Elimination Ordinance.

10. Controlling erosion and sedimentation from construction activities in conjunction with the Erosion and Sedimentation Control Ordinance.

11. Assigning responsibility and processes for approving the creation and maintenance of adequate drainage and flood damage prevention measures in conjunction with the Floodplain Regulations Ordinance.

159.105 APPLICABILITY AND JURISDICTION

(A) General

Beginning with and subsequent to its effective date, this Ordinance shall be applicable to all *development* and *redevelopment*, including, but not limited to, site plan applications, subdivision applications, and grading applications, unless exempt pursuant to Subsection (B) of this Section, Exemptions.

(B) Exemptions

- 1) Residential *development* that cumulatively disturbs less than one acre and is not part of a *larger common plan of development or sale*, and non-residential *development* that cumulatively disturbs less than one-half acre and is not part of a *larger common plan of development or sale* is exempt from the provisions of this Ordinance.
- 2) *Redevelopment* outside the *floodplain* that results in no net increase in *built-upon area* and provides equal or greater stormwater control than the previous development is exempt from the provisions of this Ordinance.
- 3) *Redevelopment* of residential structures that results in no net increase in *built-upon area* and provides equal or greater stormwater control than the previous development is exempt from the provisions of this Ordinance whether or not within the *floodplain*.
- 4) *Redevelopment* of non-residential structures that disturbs less than one-half acre, that is not part of a *larger common plan of development or sale*, that is within the *floodplain*, and that results in no net increase in *built-upon area* and provides equal or greater stormwater control than the previous development is exempt from the provisions of this Ordinance.
- 5) *Development* and *redevelopment* that disturb less than a stated area threshold are not exempt if such activities are part of a *larger common plan of development or sale* that exceeds the area threshold, even though multiple, separate or distinct activities take place at different times on different schedules.
- 6) Activities that are exempt from permit requirements of Section 404 of the Federal Clean Water Act as specified in 40 CFR 232 (primarily,

ongoing farming and forestry activities) are exempt from the provisions of this Ordinance.

(C) No Development or Redevelopment Until Compliance and Permit

No *development* or *redevelopment* shall occur except in compliance with the provisions of this Ordinance or unless exempted. No *development* for which a permit is required pursuant to this Ordinance shall occur except in compliance with the provisions, conditions, and limitations of the permit.

(D) Map

The provisions of this Ordinance shall apply within the areas designated on the map titled "Phase II Stormwater Map of City of Monroe, North Carolina" ("the Stormwater Map"), which is adopted simultaneously herewith. The Stormwater Map and all explanatory matter contained thereon accompanies and is hereby made a part of this Ordinance.

The Stormwater Map shall be kept on file by the Stormwater Administrator and shall be updated to take into account changes in the land area covered by this Ordinance and the geographic location of all *structural SCMs* permitted under this Ordinance. In the event of a dispute, the applicability of this Ordinance to a particular area of land or SCM shall be determined by reference to the North Carolina Statutes, the North Carolina Administrative Code, and local zoning and jurisdictional boundary ordinances.

159.106 INTERPRETATION

(A) Meaning and Intent

All provisions, terms, phrases, and expressions contained in this Ordinance shall be construed according to the general and specific purposes set forth in Section 104, Purpose. If a different or more specific meaning is given for a term defined elsewhere in City of Monroe Code of Ordinances, the meaning and application of the term in this Ordinance shall control for purposes of application of this Ordinance.

(B) Text Controls in Event of Conflict

In the event of a conflict or inconsistency between the text of this Ordinance and any heading, caption, figure, illustration, table, or map, the text shall control.

(C) Authority for Interpretation

The Stormwater Administrator has authority to determine the interpretation of this Ordinance. Any person may request an interpretation by submitting a written request to the Stormwater Administrator, who shall respond in writing within thirty (30) days. The Stormwater Administrator shall keep on file a record of all written interpretations of this Ordinance.

(D) References to Statutes, Regulations, and Documents

Whenever reference is made to a resolution, ordinance, statute, regulation, manual (including the *Stormwater Design Manual* prepared by the North Carolina Department of Environmental Quality), or document, it shall be construed as a reference to the most recent edition of such that has been finalized and published with due provision for notice and comment, unless otherwise specifically stated.

(E) Computation of Time

The time in which an act is to be done shall be computed by excluding the first day and including the last day. If a deadline or required date of action falls on a Saturday, Sunday, or holiday observed by the City of Monroe, the deadline or required date of action shall be the next day that is not a Saturday, Sunday or holiday observed by the City of Monroe. References to days are calendar days unless otherwise stated.

(F) Delegation of Authority

Any act authorized by this Ordinance to be carried out by the Stormwater Administrator of City of Monroe may be carried out by his or her designee.

(G) Usage

(1) Mandatory and Discretionary Terms

The words “shall,” “must,” and “will” are mandatory in nature, establishing an obligation or duty to comply with the particular provision. The words “may” and “should” are permissive in nature.

(2) Conjunctions

Unless the context clearly indicates the contrary, conjunctions shall be interpreted as follows: The word “and” indicates that all connected items, conditions, provisions and events apply. The word “or” indicates that one or more of the connected items, conditions, provisions or events apply.

(3) Tense, Plurals, and Gender

Words used in the present tense include the future tense. Words used in the singular number include the plural number and the plural number includes the singular number, unless the context of the particular usage clearly indicates otherwise. Words used in the masculine gender include the feminine gender, and vice versa.

(H) Measurement and Computation

Lot area refers to the amount of horizontal land area contained inside the lot lines of a lot or site.

159.107 STORMWATER DESIGN MANUAL

(A) Reference to Stormwater Design Manual

The Stormwater Administrator shall use the policy, criteria, and information, including technical specifications and standards, in the *Stormwater Design Manual* prepared by the North Carolina Department of Environmental Quality as the basis for decisions about stormwater permits and about the minimum design criteria (MDC), implementation and performance of *structural and non-structural stormwater control measures*.

The *Stormwater Design Manual* includes a list of acceptable stormwater treatment practices, including specific MDC's for each stormwater practice. Stormwater treatment practices that are designed, constructed, and maintained in accordance with these design and sizing criteria will be presumed to meet the minimum water quality performance standards of the Phase II and other applicable stormwater laws.

(B) Relationship of Stormwater Design Manual to Other Laws and Regulations

If the specifications or guidelines of the *Stormwater Design Manual* are more restrictive or apply a higher standard than other laws or regulations, that fact shall not prevent application of the specifications or guidelines in the *Stormwater Design Manual*.

(C) Changes to Standards and Specifications

If the standards, specifications, guidelines, policies, criteria, or other information in the *Stormwater Design Manual* are amended subsequent to the submittal of an application for approval pursuant to this Ordinance but prior to approval, standards in effect at the time of submission shall apply pursuant to NC GS 143-755. and shall be utilized in reviewing the application and in implementing this Ordinance with regard to the application.

159.108 RELATIONSHIP TO OTHER LAWS, REGULATIONS AND PRIVATE AGREEMENTS

(A) Conflict of Laws

This Ordinance is not intended to modify or repeal any other ordinance, rule, regulation or other provision of law. The requirements of this Ordinance are in addition to the requirements of any other Ordinance, rule, regulation or other provision of law. Where any provision of this Ordinance imposes restrictions different from those imposed by any other ordinance, rule, regulation or other provision of law, whichever provision is more restrictive or imposes higher protective standards for human or environmental health, safety, and welfare shall control.

(B) Private Agreements

This Ordinance is not intended to revoke or repeal any easement, covenant, or other private agreement. However, where the regulations of this Ordinance are

more restrictive or impose higher standards or requirements than such an easement, covenant, or other private agreement, the requirements of this Ordinance shall govern. Nothing in this Ordinance shall modify or repeal any private covenant or deed restriction, but such covenant or restriction shall not legitimize any failure to comply with this Ordinance. In no case shall the City of Monroe be obligated to enforce the provisions of any easements, covenants, or agreements between private parties.

159.109 SEVERABILITY

If the provisions of any section, subsection, paragraph, subdivision or clause of this Ordinance shall be adjudged invalid by a court of competent jurisdiction, such judgment shall not affect or invalidate the remainder of any section, subsection, paragraph, subdivision or clause of this Ordinance.

159.110 EFFECTIVE DATE AND TRANSITIONAL PROVISIONS

(A) Effective Date

This Ordinance shall take effect on October 1, 2007.

(B) Final Approvals, Complete Applications

All *development* and *redevelopment* projects for which complete and full applications were submitted and approved by the City prior to the effective date of this Ordinance shall be exempt from complying with all provisions of this Ordinance.

(C) Violations Continue

Any violation of provisions existing on the effective date of this Ordinance shall continue to be a violation under this Ordinance and be subject to penalties and enforcement under this Ordinance unless the use, *development*, construction, or other activity complies with the provisions of this Ordinance.

SECTION 2: ADMINISTRATION AND PROCEDURES

159.201 REVIEW AND DECISION-MAKING ENTITIES

(A) Stormwater Administrator

(1) Designation

The Stormwater Administrator shall be the City of Monroe Engineering Director or his/her designee who shall be responsible for administering and enforcing this Ordinance.

(2) Powers and Duties

In addition to the powers and duties that may be conferred by other provisions of the City of Monroe Code of Ordinances and other laws, the

Stormwater Administrator shall have the following powers and duties under this Ordinance:

- a. To review and approve, approve with conditions, or disapprove applications for approval of plans pursuant to this Ordinance.
- b. To make determinations and render interpretations of this Ordinance.
- c. To establish application requirements and schedules for submittal and review of applications and appeals, to review and make recommendations to the City of Monroe on applications for *development* or *redevelopment* approvals.
- d. To enforce the provisions of this Ordinance in accordance with its enforcement provisions.
- e. To maintain records, maps, forms and other official materials as related to the adoption, amendment, enforcement, and administration of this Ordinance.
- f. To provide expertise and technical assistance to the City Council and the Public Enterprise Committee upon request.
- g. To designate appropriate other person(s) who shall carry out the powers and duties of the Stormwater Administrator.
- h. To take any other action necessary to administer the provisions of this Ordinance.

159.202 REVIEW PROCEDURES

(A) Permit Required; Must Apply for Permit

A stormwater permit is required for all *development* and *redevelopment* unless exempt pursuant to this Ordinance. A permit may only be issued subsequent to a properly submitted and reviewed permit application, pursuant to this section.

(B) Effect of Permit

A stormwater permit shall govern the design, installation, and construction of stormwater management and control practices on the site, including *structural SCMs* and elements of site design for stormwater management other than *structural SCMs*.

The permit is intended to provide a mechanism for the review, approval, and inspection of the approach to be used for the management and control of

stormwater for the *development* or *redevelopment* site consistent with the requirements of this Ordinance, whether the approach consists of *structural SCMs* or other techniques such as low-impact or low-density design. The permit does not continue in existence indefinitely after the completion of the project; rather, compliance after project construction is assured by the maintenance provisions of this Ordinance.

(C) Authority to File Applications

All applications required pursuant to this Code shall be submitted to the Stormwater Administrator by the land *owner* or the land *owner's* duly authorized agent.

(D) Establishment of Application Requirements, Schedule, and Fees

i. Application Contents and Form

The Stormwater Administrator shall establish requirements for the content and form of all applications and shall amend and update those requirements from time to time. At a minimum, the stormwater permit application shall describe in detail how post-*development* stormwater runoff will be controlled and managed, the design of all stormwater facilities and practices, and how the proposed project will meet the requirements of this Ordinance.

ii. Submission Schedule

The Stormwater Administrator shall establish a submission schedule for applications. The schedule shall establish deadlines by which complete applications must be submitted for the purpose of ensuring that there is adequate time to review applications, and that the various stages in the review process are accommodated.

iii. Fees Required

Applications for stormwater permit approval, use of city- owned/maintained stormwater control systems, inspections related to the initial approval of stormwater control systems, and annual inspections of stormwater control systems and development sites shall be subject to any and all relevant fees as adopted by the City Council and prescribed in the City of Monroe Code of Ordinances and Fee Schedule. Application fees shall accompany any application, otherwise the application shall be determined incomplete and shall be returned to the applicant.

iv. Administrative Manual

For applications required under this Code, the Stormwater Administrator shall compile the application requirements, submission schedule, fee schedule, a copy of this Ordinance, and information on how and where to obtain the Stormwater Design Manual in an Administrative Manual, which shall be made available to the public.

(E) Submittal of Complete Application

Applications shall be submitted to the Stormwater Administrator pursuant to the application submittal schedule in the form established by the Stormwater Administrator, along with the appropriate fee established pursuant to this section.

An application shall be considered as timely submitted only when it contains all elements of a complete application pursuant to this Ordinance, along with the appropriate fee. If the Stormwater Administrator finds that an application is incomplete, the applicant shall be notified of the deficient elements and shall be provided with an opportunity to submit a complete application. However, the submittal of an incomplete application shall not suffice to meet a deadline contained in the submission schedule established above.

(F) Review

Within thirty (30) calendar days after a complete application is submitted, the Stormwater Administrator shall review the application and determine whether the application complies with the standards of this Ordinance.

i. Approval

If the Stormwater Administrator finds that the application complies with the standards of this Ordinance, the Stormwater Administrator shall approve the application. The Stormwater Administrator may impose conditions of approval as needed to ensure compliance with this Ordinance. The conditions shall be included as part of the approval.

ii. Fails to Comply

If the Stormwater Administrator finds that the application fails to comply with the standards of this Ordinance, the Stormwater Administrator shall notify the applicant and shall indicate how the application fails to comply. The applicant shall have an opportunity to submit a revised application within six (6) months of notice of deficiency from the Administrator pursuant to NC GS 143-755(b).

iii. Revision and Subsequent Review

A complete revised application shall be reviewed by the Stormwater Administrator within fifteen (15) calendar days after its re-submittal and shall be approved or disapproved.

If a revised application is not re-submitted within six (6) months from the date the applicant was notified, the application shall be considered withdrawn, and a new submittal for the same or substantially the same project shall be required along with the appropriate fee for a new submittal.

159.203 APPLICATIONS FOR APPROVAL

(A) Concept Plan and Consultation Meeting

Before a stormwater management permit application is submitted, the Stormwater Administrator or developer may request a consultation on a concept plan for the post-construction stormwater management system to be utilized in the proposed *development* project. This consultation meeting should take place at the time of the preliminary plan of subdivision or other early step in the *development* process. The purpose of this meeting is to discuss the post-construction stormwater management measures necessary for the proposed project, as well as to discuss and assess constraints, opportunities and potential approaches to stormwater management designs before formal site design engineering is commenced.

To accomplish this goal, the following information should be included in the concept plan, which should be submitted in advance of the meeting:

i. Existing Conditions/Proposed Site Plans

Existing conditions and proposed site layout sketch plans, which illustrate at a minimum: existing and proposed topography; perennial and intermittent streams; mapping of predominant soils from soil surveys (if available); boundaries of existing predominant vegetation; proposed limits of clearing and grading; and location of existing and proposed roads, buildings, parking areas and other impervious surfaces.

ii. Natural Resources Inventory

A written or graphic inventory of natural resources at the site and surrounding area as it exists prior to the commencement of the project. This description should include a discussion of soil conditions, forest cover, geologic features, topography, wetlands, and native vegetative areas on the site, as well as the location and boundaries of other natural feature protection and conservation areas such as lakes, ponds, floodplains, stream buffers and other setbacks (e.g., drinking water well setbacks, septic setbacks, etc.). Particular attention should be paid to environmentally sensitive features that provide particular opportunities or constraints for *development* and stormwater management.

iii. Stormwater Management System Concept Plan

A written or graphic concept plan of the proposed post-*development* stormwater management system including: preliminary selection and location of proposed structural stormwater controls; low-impact design elements; location of existing and proposed conveyance systems such as grass channels, swales, and storm drains; flow paths; location of floodplain/floodway limits; relationship of site to upstream and downstream properties and drainages; and preliminary location of any proposed stream channel modifications, such as bridge or culvert crossings.

(B) Stormwater Management Permit Application

The stormwater management permit application shall detail how post-*development* stormwater runoff will be controlled and managed and how the proposed project will meet the requirements of this Ordinance, including Section 3 “Standards”. All such plans shall be prepared by a qualified registered North Carolina professional engineer, surveyor, soil scientist or landscape architect, and the engineer, surveyor, soil scientist or landscape architect shall perform services only in their area of competence, and shall verify that the design of all stormwater management facilities and practices meets the submittal requirements for complete applications, that the designs and plans are sufficient to comply with applicable standards and policies found in the *Stormwater Design Manual*, and that the designs and plans ensure compliance with this Ordinance.

The submittal shall include all of the information required in the submittal checklist established by the Stormwater Administrator. Incomplete submittals shall be treated pursuant to Section 159-202(D).

(C) As-Built Plans and Final Approval

Upon completion of a project, and before a certificate of occupancy shall be granted, the applicant shall certify that the completed project is in accordance with the approved stormwater management plans and designs, and shall submit actual “as built” plans for all stormwater management facilities or practices after final construction is completed. At the discretion of the stormwater administrator, performance securities or bonds may be required for stormwater management facilities or practices until as-built plans are approved.

The as-built plans shall show the final design specifications for all stormwater management facilities and practices and the field location, size, depth, and planted vegetation of all measures, controls, and devices, as installed. The designer of the stormwater management measures and plans shall certify, under seal, that the as-built stormwater measures, controls, and devices are in compliance with the approved stormwater management plans and designs and with the requirements of this Ordinance. As a condition of the as-built plans approval, a digital copy of the as-built plans as required by the City Standard Specifications and Detail manual shall be submitted to the Stormwater Administrator for the purpose of maintaining records, performing inspections, maintenance and other future needs as determined by the City.

A final inspection and approval by the Stormwater Administrator shall occur before a project is determined to be in compliance with this ordinance and before release of any performance securities.

(D) Other Permits

No certificate of compliance or occupancy shall be issued by the City of Monroe Permitting Center without final as-built plans and a final inspection and approval by the Stormwater Administrator, except where multiple units are served by the stormwater practice or facilities, in which case the City of Monroe may elect to

withhold a percentage of permits or certificates of occupancy until as-built plans are submitted and final inspection and approval has occurred.

159.204 PARTICIPATION IN A REGIONAL STORMWATER MANAGEMENT FACILITY

(A) Where Permitted

Where a regional stormwater management facility has been established by the City of Monroe, or by an authority operating with approval from the City of Monroe, a development may participate in said program in lieu of any certification of runoff control required by this article, provided that:

1. Runoff from the development drains to an existing public regional stormwater management facility approved by the City of Monroe;
2. Participation is in the form of contribution of funds, contribution of land, contribution of stormwater management facility construction work, or a combination of these, the total value of which shall be in accordance with fee schedule adopted by the City Council; and
3. The City finds that the stormwater management plan is in compliance with all other applicable requirements of this Ordinance.

(B) Use of Contributions

Each contribution from a development participating in a regional stormwater management facility shall be used for acquisition, design, construction or maintenance of one (1) or more such facilities in the same watershed in which the development is located.

(C) Fees Required

Stormwater management control plan review, use of City-owned/ maintained stormwater control systems, inspections related to the initial approval of stormwater control systems, and annual inspections of stormwater control systems shall be subject to any and all relevant fees as adopted by City Council and prescribed in the City of Monroe Code of Ordinances and Fee Schedule. Plan review fees shall accompany the plans submitted for review, otherwise the plan submittal shall be determined incomplete and shall be returned to the applicant.

159.205 APPROVALS

(A) Effect of Approval

Approval authorizes the applicant to go forward with only the specific plans and activities authorized in the permit. The approval shall not be construed to exempt the applicant from obtaining other applicable approvals from local, state, and federal authorities.

(B) Time Limit/Expiration

An approved plan shall become null and void if the applicant fails to make *substantial progress* on the site within one year after the date of approval. The Stormwater Administrator may grant a single, one (1)-year extension of this time limit, for good cause shown, upon receiving a written request from the applicant before the expiration of the approved plan.

In granting an extension, the Stormwater Administrator may require compliance with standards adopted since the original application was submitted unless there has been substantial reliance on the original permit and the change in standards would infringe the applicant's vested rights.

159.206 APPEALS

(A) Right of Appeal

Any aggrieved person affected by any decision, order, requirement, or determination relating to the interpretation or application of this Ordinance made by the Stormwater Administrator, may file an appeal to the Board of Adjustment within thirty (30) days.

(B) Filing of Appeal and Procedures

The process and procedures for hearing appeals and variance requests, as outlined in Chapter 157, Zoning Code, shall apply to all requests for appeals or for a variance to any part of this Chapter. The Stormwater Administrator shall transmit to the Board of Adjustment all documents constituting the record on which the decision appealed from was taken.

The hearing conducted by the Board of Adjustment shall be conducted in the nature of a quasi-judicial proceeding pursuant to the provisions of NC GS 160D-405 and 406 with all findings of fact supported by competent, material evidence.

(C) Review by Superior Court

Every decision of the Board of Adjustment shall be subject to Superior Court review by proceedings in the nature of certiorari. Petition for review by the Superior Court shall be filed with the Clerk of Superior Court within thirty (30) days. of the effective date of the decision or as otherwise provided in 160D-1405(d).

SECTION 3: STANDARDS

159.301 GENERAL STANDARDS

All *development* and *redevelopment* to which this Ordinance applies shall comply with the standards of this section.

159.302 IMPERVIOUS SURFACE REQUIREMENTS

(A) Setback Requirement

All impervious surfaces, except for roads, paths, and water dependent structures, shall be located at least thirty-five (35) feet landward of all perennial and intermittent surface waters, measured from top of bank. Development approved in conjunction with a conditional zoning district or special use permit shall have an impervious surface setback of fifty (50) feet landward of all perennial or intermittent surface waters.

A perennial or intermittent surface water shall be deemed present if the feature is shown on either the most recent version of the soil survey map prepared by the Natural Resources Conservation Service of the United States Department of Agriculture (USDA) or the most recent complete version of the 1:24,000 scale (7.5 minute) quadrangle topographic maps prepared by the United States Geological Survey (USGS). An exception to this requirement may be allowed when surface waters are not present in accordance with the provisions of 15A NCAC 2B .0233 (3)(a) or similar site-specific determination made using *Division*-approved methodology.

(B) No new impervious or partially pervious surface in floodplain

For development activities, no new impervious or partially pervious surfaces, except for road crossings (public and private), paths, and water dependent structures, where no practical alternative exists shall be allowed within the floodplain.

(C) Development in Critical Area of Water Supply Watersheds

All development activities that are located within the area designated by the Environmental Management Commission as a Critical Area of a Water Supply Watershed (shown on the Stormwater Map), shall be limited to a maximum impervious surface density of thirty-six (36) percent. For purposes of the Stormwater Management Ordinance, the City is divided into the watershed districts described in Section (D).

In addition to those requirements set out herein, all provisions of the City Code of Ordinances Section 54.02 and all watershed regulations of the NC Division of Environmental Management shall apply.

(D) Watershed Districts

The following districts are hereby established as zoning overlay districts and shall be in place and are depicted on the city's official zoning map:

- (1) WS-III-CA (Critical Area) Overlay District.
- (2) WS-III-BW (Balance of Watershed) Overlay District.
- (3) WS-IV-CA (Critical Area) Overlay District.
- (4) WS-IV-PA (Protected Area) Overlay District

159.3030 DEVELOPMENT STANDARDS FOR LOW DENSITY PROJECTS

Any drainage area within a project is considered low density when said drainage area has less than or equal to 24% built upon area, as determined by the methodology established in the *Stormwater Design Manual*. Such low-density projects shall comply with each of the following standards.

- (A) Vegetated Conveyances. Storm water runoff from the development shall be transported from the development by vegetated conveyances to the maximum extent practicable.
- (B) Property Usage Restrictions. The approval of the stormwater permit shall require enforceable restrictions on property usage that runs with the land, including recorded deed restrictions and protective covenants, to ensure that future development and redevelopment maintains the site consistent with the approved project plans.

159.3031 DEVELOPMENT STANDARDS FOR HIGH DENSITY PROJECTS

Any drainage area within a project is considered high density when said drainage area has greater than or equal to 24% built upon area, as determined by the methodology established in the *Stormwater Design Manual*. Such high-density projects shall implement storm water treatment systems that comply with each of the following standards:

- (A) Stormwater Quality Treatment Volume. The measures shall control and treat runoff from the first inch of rain.
- (B) Stormwater Quality Treatment. All structural stormwater treatment systems used to meet these requirements shall be designed in accordance with the applicable device specific Minimum Design Criteria (MDC)) as required by the Stormwater Design Manual;
- (C) Stormwater Treatment System Design. General engineering design criteria for all projects shall be in accordance with 15A NCAC 2H .1008(c), as explained in the *Stormwater Design Manual*;

- (D) Stormwater Volume Control. The measure shall discharge the 1-year, 24-hour storage volume at a rate equal or less than the pre-development discharge rate. Runoff volume drawdown time shall be a minimum of 24 hours, but not more than one hundred twenty (120) hours.
- (E) Storm Water Peak Control. The peak flow shall be controlled as described in Section 159.308.
- (F) Property Usage Restrictions. The approval of the stormwater permit shall require enforceable restrictions on property usage that runs with the land, including recorded deed restrictions and protective covenants, to ensure that future *development* and *redevelopment* maintains the site consistent with the approved project plans.

159.304 STREAM BUFFER REQUIREMENTS.

- (A) A 35-foot undisturbed vegetated buffer is required along all perennial and intermittent stream channels.
- (B) The buffer shall begin at the most landward limit of the top of bank or the most landward limit of the normal ponded water level and extend landward on perpendicularly.
- (C) Diffuse flow of runoff shall be maintained in the riparian buffer to the extent practicable.
- (D) Existing and ongoing uses shall be exempt.
- (E) Allowable uses within the buffer include bridges, dam maintenance, new stormwater facilities designed to control sediment and attenuate flow before being discharged through the road crossings and temporary sediment and erosion control devices.

159.305 STANDARDS FOR STORMWATER CONTROL MEASURES

(A) Evaluation According to Contents of Stormwater Design Manual

All stormwater control measures and stormwater treatment practices (also referred to as SCMs) required under this Ordinance shall be evaluated by the Stormwater Administrator according to the policies, criteria, and information, including technical specifications and standards and the specific design criteria for each stormwater practice, in the Stormwater *Design Manual*. The Stormwater Administrator shall determine whether proposed SCMs will be adequate to meet the requirements of this Ordinance.

(B) Determination of Adequacy; Presumptions and Alternatives

Stormwater treatment practices that are designed, constructed, and maintained in accordance with the criteria and specifications in the *Stormwater Design Manual* will be presumed to meet the minimum water quality and quantity performance

standards of this Ordinance. Whenever an applicant proposes to utilize a practice or practices not designed and constructed in accordance with the criteria and specifications in the *Stormwater Design Manual*, the applicant shall have the burden of demonstrating that the practice(s) will satisfy the minimum water quality and quantity performance standards of this Ordinance. The Stormwater Administrator may require the applicant to provide the documentation, calculations, and examples necessary for the Stormwater Administrator to determine whether such an affirmative showing is made.

(C) Separation from Seasonal High Water Table

For SCMs that require a separation from the seasonal high water table, the separation shall conform to the applicable device specific MDC as required by the Stormwater Design Manual.

159.306 DEDICATION OF SCMS, FACILITIES & IMPROVEMENTS

The City of Monroe may accept dedication of any existing or future stormwater management facility for maintenance, provided such facility meets all the requirements of this Ordinance and includes adequate and perpetual access and sufficient area, by easement or otherwise, for inspection and regular maintenance. Decision to accept dedication shall be based on formal action of the Monroe City Council at their sole discretion.

159.307 VARIANCES

- (A) Any person may petition the City of Monroe for a variance heard by the Monroe Board of Adjustment pursuant to the provisions of NC GS 160D-405 and 406 granting permission to use the person's land in a manner otherwise prohibited by this Ordinance. To qualify for a variance, the petitioner must show all of the following:
 - (1) Unnecessary hardships would result from strict application of this Ordinance.
 - (2) The hardships result from conditions that are peculiar to the property, such as the location, size, or topography of the property.
 - (3) The hardships did not result from actions taken by the petitioner.
 - (4) The requested variance is consistent with the spirit, purpose, and intent of this Ordinance; will secure public safety and welfare; and will preserve substantial justice.
- (B) The City of Monroe may impose reasonable and appropriate conditions and safeguards upon any variance it grants.
- (C) Statutory exceptions

Notwithstanding subsection (A) of this section, exceptions from the thirty-five- (35) foot landward location of built upon area requirement as well as the deed restrictions and protective covenants requirements shall be granted in any of the following instances:

(1) When there is a lack of practical alternatives for a road crossing, railroad crossing, bridge, airport facility, or utility crossing as long as it is located, designed, constructed, and maintained to minimize disturbance, provide maximum nutrient removal, protect against erosion and sedimentation, have the least adverse effects on aquatic life and habitat, and protect water quality to the maximum extent practicable through the use of SCMs.

(2) When there is a lack of practical alternatives for a stormwater management facility; a stormwater management pond; or a utility, including, but not limited to, water, sewer, or gas construction and maintenance corridor, as long as it is located fifteen(15) feet landward of all perennial and intermittent surface waters and as long as it is located, designed, constructed, and maintained to minimize disturbance, provide maximum nutrient removal, protect against erosion and sedimentation, have the least adverse effects on aquatic life and habitat, and protect water quality to the maximum extent practicable through the use of SCMs.

(3) A lack of practical alternatives may be shown by demonstrating that, considering the potential for a reduction in size, configuration, or density of the proposed activity and all alternative designs, the basic project purpose cannot be practically accomplished in a manner which would avoid or result in less adverse impact to surface waters.

159.308 STORMWATER PEAK FLOW CONTROL STANDARDS

(A) Applicability

This section applies to the following type developments or redevelopments:

(1) All non-residential sites containing new development and/or redevelopment including road construction, grading, paving, gravel placement, and construction of buildings and other structures, which include the creation of 20,000 square feet or more of new impervious area, within the corporate limits and the extraterritorial jurisdiction of the City of Monroe. Impervious areas in existence prior to the effective date of this Ordinance shall not be included in the computation of impervious area; and

(2) All new high-density residential development and/or redevelopment.

Exemption: Properties that directly abut regulated floodways as designated by the Federal Emergency Management Agency shall be considered exempt from requirements of this Section.

(B) General Requirements

(1) The engineer or landscape architect of record shall conduct hydrologic and hydraulic engineering studies for the site for both pre-development and post-

development conditions. The engineer or landscape architect of record shall provide a certification that the development or redevelopment will not cause increased off-site flooding, drainage, or erosion problems

(2) Where it is determined that the development of the site does increase the peak discharge rate, stormwater quantity control improvements must be implemented. The stormwater quantity control improvements must limit the two (2)-year and ten (10)-year post-development peak discharge rates to pre-development peak discharge rates, to minimize flooding, drainage, and erosion problems. These improvements may consist of nonstructural approaches such as natural swales, depressions in the land and other natural approaches, or structural approaches such as detention structures (wet and dry basins), extended detention facilities and alternative best management practices (SCMs) with provisions for stormwater quantity control. The emergency overflow and outlet works for any pond or wetland constructed as a SCM shall be capable of safely passing a discharge with a minimum recurrence frequency as specified in the Stormwater Design Manual. Requirements of the Dam Safety Act shall be met when applicable. A combination of nonstructural and structural approaches is encouraged.

(3) For stormwater management improvements proposed to achieve compliance with quantity control requirements of this section, a hydrologic-hydraulic analysis of the site drainage system in the pre-development condition and the post-development condition shall be performed. The analysis should be included with the stormwater management plan and should demonstrate that the quantity control requirements stated in this section will be achieved by the proposed improvements. These improvements shall be subject to review and approval by the Stormwater Administrator.

(4) If site characteristics indicate that complying with the minimum stormwater management requirements of this section will not provide adequate engineering designs or protection for local residents, and downstream property, it shall be the site designer's responsibility to exceed the minimum requirements as necessary.

159.309 PERMANENT POND DAM EVALUATION

(A) All preliminary plats that include storm water runoff to any existing or proposed permanent ponds, shall be subject to the review of the State Dam Safety Engineer. An evaluation of the pond dam shall be made by the designer, in accordance with the Dam Safety Law of 1967, G.S. sections 143-215.23 through 143-215.37, and shall be submitted to the State Dam Safety Engineer for review.

(B) All existing ponds shall be evaluated and rehabilitated as required to ensure the safety and stability of the facility, to include the following:

(1) Hydrologic and hydraulic analysis to ensure that the pond will safely withstand the 25-year storm with a minimum of one foot of freeboard at the dam

and safely pass the 100-year storm. Design calculations shall include the assumption of future buildout of the drainage basin.

- (2) Geotechnical investigations of the dam embankment to assess the condition of the embankment materials and foundation.
- (3) Structural analysis to assess the stability and integrity of the dam embankment and make recommended repairs as required.

SECTION 4: **MAINTENANCE**

159.401 GENERAL STANDARDS FOR MAINTENANCE

(A) Function of SCMs As Intended

The *owner* of each *structural SCM* installed pursuant to this Ordinance shall maintain and operate it so as to preserve and continue its function in controlling stormwater quality and quantity at the degree or amount of function for which the *structural SCM* was designed.

(B) Annual Maintenance Inspection and Report

The person responsible for maintenance of any *structural SCM* installed pursuant to this Ordinance shall submit to the Stormwater Administrator an inspection report annually from one of the following persons performing services only in their area of competence: a qualified registered North Carolina professional engineer, surveyor, landscape architect, soil scientist, aquatic biologist, or person certified by the North Carolina State University Cooperative Extension Service for stormwater treatment practice inspection and maintenance. The inspection report shall contain all of the following:

- (1) The name and address of the land *owner*;
- (2) The recorded book and page number of the lot of each *structural SCM*;
- (3) A statement that an inspection was made of all *structural SCMs*;
- (4) The date the inspection was made;
- (5) A statement that all inspected *structural SCMs* are performing properly and are in compliance with the terms and conditions of the approved maintenance agreement required by this Ordinance;
- (6) The original signature and seal of the engineer, surveyor, or landscape architect; and
- (7) A financial statement documenting the available funding established in the escrow account for operation and maintenance of the stormwater control and management facilities.

All inspection reports shall be on forms supplied by the Stormwater Administrator. An original inspection report shall be provided to the Stormwater Administrator beginning one year from the date of as-built certification and each year thereafter on or before the date of the as-built certification.

159.402 OPERATION AND MAINTENANCE AGREEMENT

(A) *In general.*

- (1) Prior to the conveyance or transfer of any lot or building site to be served by a structural SCM pursuant to this Ordinance, and prior to issuance of any permit for development or redevelopment requiring a structural SCM pursuant to this Ordinance, the applicant and owner of the site must execute an operation and maintenance agreement that shall be binding on all subsequent owners of the site, portions of the site, and lots or parcels served by the structural SCM. Until the transference of all property, sites, or lots served by the structural SCM, the original owner or applicant shall have primary responsibility for carrying out the provisions of the maintenance agreement.
- (2) The operation and maintenance agreement shall require the owner or owners to maintain, repair and, if necessary, reconstruct the structural SCM, and shall state the terms, conditions, and schedule of maintenance for the structural SCM. In addition, it shall grant to the City of Monroe a right of entry in the event that the Stormwater Administrator has reason to believe it has become necessary to inspect, monitor, maintain, repair, or reconstruct the structural SCM; however, in no case shall the right of entry, of itself, confer an obligation on the City of Monroe to assume responsibility for the structural SCM.
- (3) The operation and maintenance agreement must be approved by the Stormwater Administrator prior to plan approval and shall be recorded with the county Register of Deeds. The deed book and page shall be referenced on all plats, including the final plat. A copy of the recorded maintenance agreement shall be given to the Stormwater Administrator within fourteen (14) days following its recordation.

(B) *Operation and Maintenance Agreements.*

A required Operation and Maintenance agreement shall include all of the following provisions:

- (1) Acknowledgment that the owner or homeowners' association shall continuously operate and maintain the Stormwater control and management facilities.
- (2) Upon acceptance of the structural SCM, the owner or homeowners' association shall establish and maintain a segregated escrow account held by the owner or homeowners' association to hold funds for the purpose of sediment removal, structural, biological or vegetative replacement, major repair, or reconstruction of the structural SCMs. The amount of the escrow account shall not exceed ten (10%) percent of the structural SCM project's original cost of construction as indicated by a sealed engineer's estimate. The owner or homeowners' association shall have a period of five (5) years from the time the structural SCM is accepted by the City to fully deposit escrow funds in the account, and shall deposit and retain in the account at least two (2%) percent of the project's original cost of construction annually for five years until fully funded. Once fully funded at ten (10%) of the engineer's estimated cost, that amount shall be retained and maintained in the segregated escrow account, and the owner or homeowners' association shall annually provide the City of Monroe verification of the amount held in the escrow account.
- (3) Granting to the City of Monroe a right of entry to inspect, and monitor the SCMs and the right of entry and access for sediment removal, structural, biological or vegetative replacement, major repair, or reconstruction of the structural SCMs upon failure of the owner to take necessary action after notice by the City and a reasonable opportunity to correct.
- (4) Allowing the City of Monroe to recover from the escrow account any and all costs the City of Monroe expends to maintain or repair the structural SCMs or to correct any operational deficiencies. Failure to pay the City of Monroe all of its expended costs, after forty-five (45) days' written notice, shall constitute a breach of the agreement. In case of a deficiency, the City of Monroe shall thereafter be entitled to bring an action against the owner or homeowners' association and its members to pay, or foreclose upon the lien hereby authorized by the agreement against the property, or both. Interest, collection costs, and attorney fees shall be added to the recovery.

- (5) A statement that this agreement shall not obligate the City of Monroe to maintain or repair any structural SCMs, and the City of Monroe shall not be liable to any person for the condition or operation of structural SCMs.
- (6) A statement that this agreement shall not in any way diminish, limit, or restrict the right of the City of Monroe to enforce any of its Ordinances as authorized by law.
- (7) A provision indemnifying and holding harmless the City of Monroe for any costs and injuries arising from or related to the structural SCM, unless the City of Monroe has agreed in writing to assume the maintenance responsibility for the SCM and has accepted dedication of any and all rights necessary to carry out that maintenance.
- (8) A provision that a financial statement shall be provided and included as part of the annual inspection report documenting the available funding established in the escrow account for operation and maintenance of the stormwater control and management facilities.

159.403 INSPECTION PROGRAM

Inspections and inspection programs by City of Monroe may be conducted or established on any reasonable basis, including but not limited to routine inspections; random inspections; inspections based upon complaints or other notice of possible violations; and joint inspections with other agencies inspecting under environmental or safety laws. Inspections may include, but are not limited to, reviewing maintenance and repair records; sampling discharges, surface water, groundwater, and material or water in SCMs; and evaluating the condition of SCMs.

If the *owner* or occupant of any property refuses to permit such inspection, the Stormwater Administrator shall proceed to obtain an administrative search warrant pursuant to G.S. 15-27.2 or its successor. No person shall obstruct, hamper or interfere with the Stormwater Administrator while carrying out his or her official duties.

159.404 PERFORMANCE SECURITY FOR INSTALLATION AND MAINTENANCE

- (A) ***May be required.*** The City of Monroe may, at its discretion, require the submittal of a performance security or bond with surety, cash escrow, letter of credit or other acceptable legal arrangement prior to issuance of a permit in order to ensure that the structural SCMs are installed by the permit holder as required by the approved Stormwater management plan.

(B) Amount.

- (1) Installation. The amount of an installation performance security shall be the total estimated construction cost of the SCMs approved under the permit, plus 10%.
- (2) Maintenance. The owner and applicant shall keep the property on which the SCM's are located reasonably maintained and in a fit and proper condition prior to being accepted by the City of Monroe.

(C) Uses of performance security.

- (1) Forfeiture provisions. The performance security shall contain forfeiture provisions for failure, after proper notice, to complete work within the time specified, or to initiate or maintain any actions which may be required of the applicant or owner in accordance with this Ordinance, approvals issued pursuant to this Ordinance, or an operation and maintenance agreement established pursuant to this Ordinance.
- (2) Default. Upon default of the owner to construct, maintain, repair and, if necessary, reconstruct any structural SCM in accordance with the applicable permit or operation and maintenance agreement, the Stormwater Administrator shall obtain and use all or any portion of the security to make necessary improvements based on an engineering estimate. Such expenditure of funds shall only be made after requesting the owner to comply with the permit or maintenance agreement.
- (3) Costs in excess of performance security. If the City of Monroe takes action upon such failure by the applicant and owner, the City of Monroe may collect from the applicant and owner the difference between the amount of the reasonable cost of such action in addition to any other penalties or damages due to the City of Monroe.
- (4) Refund. Within sixty days of acceptance by the City, the installation performance security shall be refunded to the applicant or terminated.

159.405 NOTICE TO OWNERS

- (A) Deed Recordation and Indications On Plat.** The applicable operations and maintenance agreement or dedication and acceptance into public maintenance

pertaining to every *structural SCM* shall be referenced on the final plat and shall be recorded with the county Register of Deeds upon final plat approval. If no subdivision plat is recorded for the site, then the operations and maintenance agreement or dedication and acceptance into public maintenance shall be recorded with the county Register of Deeds so as to appear in the chain of title of all subsequent purchasers under generally accepted searching principles.

- (B) *Signage.* Where appropriate, to assure compliance with this Ordinance, *structural SCMs* shall be posted with a conspicuous sign stating who is responsible for required maintenance and annual inspection. The sign shall be maintained so as to remain visible and legible.

**159.406 RECORDS OF INSTALLATION AND MAINTENANCE
 ACTIVITIES**

The *owner* of each *structural SCM* shall keep records of inspections, maintenance, and repairs for at least five years from the date of creation of the record and shall submit the same upon reasonable request to the Stormwater Administrator.

159.407 NUISANCE

The *owner* of each stormwater SCM, whether *structural* or *non-structural SCM*, shall maintain it so as not to create or result in a nuisance condition.

SECTION 5: ENFORCEMENT AND VIOLATIONS

159.501 GENERAL

(A) Authority to Enforce

The provisions of this Ordinance shall be enforced by the Stormwater Administrator, his or her designee, or any authorized agent of City of Monroe. Whenever this section refers to the Stormwater Administrator, it includes his or her designee as well as any authorized agent of City of Monroe.

(B) Violation Unlawful

Any failure to comply with an applicable requirement, prohibition, standard, or limitation imposed by this Ordinance, or the terms or conditions of any permit or other *development* or *redevelopment* approval or authorization granted pursuant to this Ordinance, is unlawful and shall constitute a violation of this Ordinance.

(C) Each Day a Separate Offense

Each day that a violation continues shall constitute a separate and distinct violation or offense.

(D) Responsible Persons/Entities

Any person who erects, constructs, reconstructs, alters (whether actively or passively), or fails to erect, construct, reconstruct, alter, repair or maintain any structure, SCM, practice, or condition in violation of this Ordinance shall be subject to the remedies, penalties, and/or enforcement actions in accordance with this section. Persons subject to the remedies and penalties set forth herein may include any owner, tenant or occupant, or any other person who has control over, or responsibility for, the use or *development* of the property on which the violation occurs; such person may also include any architect, engineer, builder, contractor, developer, agency, or any other person who participates in, assists, directs, creates, causes, or maintains a condition that results in or constitutes a violation of this Ordinance, or fails to take appropriate action, so that a violation of this Ordinance results or persists. or,

For the purposes of this article, responsible person(s) shall include but not be limited to:

(1) Person Maintaining Condition Resulting in or Constituting Violation

An architect, engineer, builder, contractor, developer, agency, or any other person who participates in, assists, directs, creates, causes, or maintains a condition that constitutes a violation of this Ordinance, or fails to take appropriate action, so that a violation of this Ordinance results or persists.

(2) Responsibility For Land or Use of Land

The *owner* of the land on which the violation occurs, any tenant or occupant of the property, any person who is responsible for stormwater controls or practices pursuant to a private agreement or public document, or any person, who has control over, or responsibility for, the use, *development* or *redevelopment* of the property.

159.502 REMEDIES AND PENALTIES

The remedies and penalties provided for violations of this Ordinance, whether civil or criminal, shall be cumulative and in addition to any other remedy provided by law, and may be exercised in any order.

(A) Remedies

(1) Withholding of Certificate of Occupancy

The Stormwater Administrator or other authorized agent may refuse to issue a certificate of occupancy for the building or other improvements constructed or being constructed on the site and served by the stormwater practices in question until the applicant or other responsible person has taken the remedial measures set forth in the notice of violation or has otherwise cured the violations described therein.

(2) Disapproval of Subsequent Permits and Development Approvals

As long as a violation of this Ordinance continues and remains uncorrected, the Stormwater Administrator or other issuing authority may withhold, and may disapprove, any request for permit or *development* approval or authorization requested for the land on which the violation occurs.

(3) Injunction, Abatements, etc.

The Stormwater Administrator, in conjunction with the Monroe City Attorney's Office may institute an action in a court of competent jurisdiction for a mandatory or prohibitory injunction and order of abatement to correct a violation of this Ordinance. Any person violating this Ordinance shall be subject to the full range of equitable remedies provided in the General Statutes or at common law.

(4) Correction as Public Health Nuisance, Costs as Lien, etc.

If the violation is deemed dangerous or prejudicial to the public health or public safety and is within the geographic limits prescribed by North Carolina G.S. § 160A-193, the Stormwater Administrator, in conjunction with the Monroe City Attorney's Office may cause the violation to be corrected and the costs to be assessed as a lien against the property.

(5) Stop Work Order

The Stormwater Administrator may issue a stop work order to the person(s) violating this Ordinance. The stop work order shall remain in effect until the person has taken the remedial measures set forth in the notice of violation or has otherwise cured the violation or violations described therein. The stop work order may be withdrawn or modified to enable the person to take the necessary remedial measures to cure such violation or violations.

(6) Restoration of Areas Affected by Failure to Comply

By issuance of an order of restoration, the Storm Water Administrator may require a Person(s) who engaged in a land development activity and failed to comply with this ordinance to take such remedial actions needed to minimize the detrimental effects of the resulting pollution. This authority is in addition to any other civil penalty or injunctive relief authorized under this ordinance.

(B) Civil Penalties

Any Person who conducts an act or action, allows directly or indirectly, acts in concert with, participates, directs, or assists directly or indirectly in the creation of a Violation of this Ordinance is subject to a civil penalty.

- (1) A civil penalty may be assessed for the time period from the date the Violation first occurs until the date that the Violation ceases, as verified by the City. Refusal to accept the notice shall not relieve the Violator of the obligation to pay such penalty.
- (2) Payment of a civil penalty does not relieve the Violator of the obligation to correct the violation.
- (3) Upon failure of a Violator to correct a violation within the time period stated in a Notice of Violation, each day's continuing violation thereafter shall constitute a separate and distinct offense for the purpose of assessing a civil penalty. The maximum civil penalty for each violation of this Ordinance shall be \$1,000 per day and/or \$30,000 total.
- (4) In determining the amount of the penalty, the City shall consider the degree and extent of harm to the environment, public health and public and private property; the cost of remedying the damage; the duration of the violation; whether the violation was intentional; the prior record of the Person responsible for the violation in complying with this Ordinance; the City's enforcement costs, and the amount of money saved by the violator through his, her or its noncompliance.
- (5) Civil penalties may be assessed up to the full amount of penalty to which the City of Monroe is subject for violations of its National Pollutant Discharge Elimination System (NPDES) Permit.

- (6) Penalties may be assessed concurrently with a Notice of Violation that details the civil penalties, their accrual period, and the payment deadline if any of the following occur:
- (a) Failure to submit a storm water management plan.
 - (b) Conducting land disturbing activities without an approved plan.
 - (c) Failure to install or maintain best management practices per the approved plan.
 - (d) Repeating a violation on the same project by the same responsible party.
 - (e) Obstructing an authorized representative performing official duties.
 - (f) Willful violation of this ordinance.

159.503 PROCEDURES FOR INSPECTIONS AND INVESTIGATIONS

(A) Initiation/Complaint

Whenever a violation of this Ordinance occurs, or is alleged to have occurred, any person may file a written complaint. Such complaint shall state fully the alleged violation and the basis thereof, and shall be filed with the Stormwater Administrator, who shall record the complaint. The complaint shall be investigated promptly by the Stormwater Administrator.

(B) Inspection

Upon presenting proper credentials, the Stormwater Administrator may enter any land, building, or premises—public or private—to inspect for compliance with this ordinance. The Administrator is empowered to conduct necessary investigations, perform inspections at reasonable times, and require written statements or sworn reports. By applying for or receiving a stormwater permit, the owner grants limited access for these purposes.

(C) Notice of Violation and Order to Correct

When the Stormwater Administrator finds that any building, structure, or land is in violation of this Ordinance, the Stormwater Administrator shall issue a Notice of Violation, in writing, to the property *owner* or other responsible persons/entities violating this Ordinance. The notification shall indicate the nature of the violation, contain the address or other description of the site upon which the violation is occurring, order the necessary action to abate the violation, and give a deadline for correcting the violation. If civil penalties are to be assessed, the notice of civil penalties or Notice of V shall also contain a statement of the civil penalties to be assessed, the time of their accrual, and the time within which they must be paid or be subject to collection as a debt.

The Stormwater Administrator may deliver the notice of violation and correction order personally, by the Monroe Police Department, by certified or registered mail, return receipt requested, or by any means authorized for the service of documents by Rule 4 of the North Carolina Rules of Civil Procedure.

If a violation is not corrected within a reasonable period of time, as provided in the notification, the Stormwater Administrator may take appropriate action under this Ordinance to correct and abate the violation and to ensure compliance with this Ordinance.

The Stormwater Administrator may, within their professional discretion, issue a written warning that specifies the violation and requires prompt investigation and resolution within the stated period. This warning does not relieve the violator of liability for offenses committed before or after its issuance, nor does it limit the City's authority to take further enforcement action, including emergency measures.

(D) Extension of Time

A person who receives a notice of violation and correction order, or the *owner* of the land on which the violation occurs, may submit to the Stormwater Administrator a written request for an extension of time for correction of the violation. On determining that the request includes enough information to show that the violation cannot be corrected within the specified time limit for reasons beyond the control of the person requesting the extension, the Stormwater Administrator may extend the time limit as is reasonably necessary to allow timely correction of the violation, up to, but not exceeding 30 days. The Stormwater Administrator may grant thirty (30) -day extensions in addition to the foregoing extension if the violation cannot be corrected within the permitted time due to circumstances beyond the control of the person violating this Ordinance. The Stormwater Administrator may grant an extension only by written notice of extension. The notice of extension shall state the date prior to which correction must be made, after which the violator will be subject to the penalties described in the notice of violation and correction order.

(E) Enforcement After Time to Correct

After the time has expired to correct a violation, including any extension(s) if authorized by the Stormwater Administrator, the Stormwater Administrator shall determine if the violation is corrected. If the violation is not corrected, the Stormwater Administrator may act to impose one or more of the remedies and penalties authorized by this Ordinance.

(F) Emergency Enforcement

If delay in correcting a violation would seriously threaten the effective enforcement of this Ordinance or pose an immediate danger to the public health, safety, or welfare, then the Stormwater Administrator may order the immediate cessation of a violation. Any person so ordered shall cease any violation immediately. The Stormwater Administrator may seek immediate enforcement, without prior written notice, through any remedy or penalty authorized by this article.

SECTION 6: DEFINITIONS

159.601 TERMS DEFINED

When used in this Ordinance, the following words and terms shall have the meaning set forth in this section, unless other provisions of this Ordinance specifically indicate otherwise.

Built-upon area (BUA)

That portion of a *development* project that is covered by impervious or partially impervious surface including, but not limited to, buildings; pavement and gravel areas such as roads, parking lots, and paths; and recreation facilities such as tennis courts. “Built-upon area” does not include a wooden slatted deck, the water area of a swimming pool, or pervious or partially pervious paving material to the extent that the paving material absorbs water or allows water to infiltrate through the paving material.

Department

The North Carolina Department of Environment and Natural Resources.

Stormwater Design Manual

The stormwater design manual approved for use in Phase II jurisdictions by the North Carolina Department of Environmental Quality for the proper implementation of the requirements of the Federal Phase II stormwater program. All references herein to the *Stormwater Design Manual* are to the latest published edition or revision. The *Stormwater Design Manual* is not part of the City of Monroe Standard Specifications and Detail Manual.

Development

Any land-disturbing activity that increases the amount of *built upon area* or that otherwise decreases the infiltration of precipitation into the soil.

Division

The Division of Water Quality in the *Department*.

Floodplain

The one percent Annual Chance Floodplain as delineated by the North Carolina Floodplain Mapping Program in the Division of Emergency Management.

Larger common plan of development or sale

Any area where multiple separate and distinct construction or land-disturbing activities will occur under one plan. A plan is any announcement or piece of documentation (including but not limited to a sign, public notice or hearing, sales pitch, advertisement, loan application, drawing, permit application, zoning request, or computer design) or physical demarcation (including but not limited to boundary signs, lot stakes, or surveyor markings) indicating that construction activities may occur on a specific plot.

1-year, 24-hour storm

The surface runoff resulting from a 24-hour rainfall of an intensity expected to be equaled or exceeded, on average, once in 12 months and with a duration of 24 hours.

Owner

The legal or beneficial owner of land, including but not limited to a mortgagee or vendee in possession, receiver, executor, trustee, or long-term or commercial lessee, or any other person or entity holding proprietary rights in the property or having legal power of management and control of the property. "Owner" shall include long-term commercial tenants; management entities, such as those charged with or engaged in the management of properties for profit; and every person or entity having joint ownership of the property. A secured lender not in possession of the property does not constitute an owner, unless the secured lender is included within the meaning of "owner" under another description in this definition, such as a management entity.

Redevelopment

Any *development* on previously-developed land, other than a rebuilding activity that results in no net increase in *built-upon area* and provides equal or greater stormwater control than the previous *development*.

Structural SCM Stormwater Control Measure (SCM)

A physical device designed to trap, settle out, or filter pollutants from stormwater runoff; to alter or reduce stormwater runoff velocity, amount, timing, or other characteristics; to approximate the *pre-development* hydrology on a developed site; or to achieve any combination of these goals. Structural SCM includes physical practices such as constructed wetlands, vegetative practices, filter strips, grassed swales, and other methods installed or created on real property. "Structural SCM" is synonymous with "structural practice," "stormwater control facility," "stormwater control practice," "stormwater treatment practice," "stormwater management practice," "stormwater control measures," "structural stormwater treatment systems," "best management practice (BMP), and similar terms used in this Ordinance.

Substantial progress

For the purposes of determining whether sufficient progress has been made on an approved plan, one or more of the following construction activities toward the completion of a site or subdivision plan shall occur: obtaining a grading permit and conducting grading activity on a continuous basis and not discontinued for more than thirty (30) days; or installation and approval of on-site infrastructure; or obtaining a building permit for the construction and approval of a building foundation. "Substantial progress" for purposes of determining whether an approved plan is null and void is not necessarily the same as "substantial expenditures" used for determining vested rights pursuant to applicable law.

Section 2. This Ordinance shall be effective upon adoption.

Adopted this 8th day of July, 2025.

Robert A. Burns, Mayor

Attest:

Bridgette H. Robinson, City Clerk



STAFF REPORT

TO: Public Enterprise Committee
VIA: William M. Watson, City Manager
DATE: July 1, 2025
FROM: Rob Miller, General Manager of Energy Services and Water Resources
PREPARED BY: Amy Cook, Water Resources General Manager of Operations
SUBJECT: Purchase of one (1) Komatsu WA200-8 Wheel Loader

SUMMARY STATEMENT

Water Resources Staff requests the Public Enterprise Committee to consider approving the purchase of a Komatsu WA200-8 Wheel Loader for the City of Monroe Wastewater Treatment Plant.

REVIEW

The Wastewater Treatment Plant (WWTP) staff has identified the need to purchase equipment for solids handling at the WWTP. The current wheel loader used for solids handling has reached the end of its useful life and is in need of replacement.

A bid was received for a wheel loader that meets all of the needs for the WWTP through Sourcewell. Sourcewell is a purchasing cooperative that collectively bids specified equipment providing competitive pricing as well as meeting statutory requirements. Municipalities and various educational institutions are allowed to utilize Sourcewell through membership to the cooperative. The City has been a member since 2010 and utilizing these contracts saves the time and expense of processing formal bids.

Linder provided a quote to the City of Monroe for a Komatsu WA200-8 Wheel Loader in the amount of \$176, 710.00 that meets the requirements of Sourcewell. Therefore, staff recommends purchasing the equipment through Sourcewell’s Cooperative Purchasing program from Linder in the amount of \$176,710.00. Sufficient funds are budgeted for the acquisition in the Capitalized Equipment account, 5108040 424020.

RECOMMENDATION

It is the recommendation of Staff that Public Enterprise Committee take the following action:
Motion to approve the purchase of a Komatsu WA200-8 Wheel Loader from Linder for \$176,710.00 through Sourcewell's Cooperative Purchasing program, authorize the City Manager to execute the necessary documents and send to City Council for approval on the July 8, 2025 consent agenda.

Attachment: Linder Purchase Agreement jwike-0138

| | | | | | | | |
|---|--|---|---|--|---|---|--|
| Plant City 1601 S. Frontage Rd. Plant City, FL 33563 (813) 754-2727 | Pembroke Pines 20900 Taft Street Pembroke Pines, FL 33029 (954) 433-2800 | Jacksonville 110 Halsema Rd. S. Jacksonville, FL 32220 (904) 786-6710 | Orlando 23 Taft Vineland Rd Orlando, FL 32824 (407) 849-6560 | Ocala 2441 SW 57 th Avenue Ocala, FL 34474 (352) 629-2810 | Ft. Myers 4656 Elevation Way Ft. Myers, FL 33905 (239) 337-1313 | West Palm Beach 4801 Dyer Blvd Riviera Beach, FL 33407 (561) 863-0570 | Asheville 575 Goldview Rd Asheville, NC 28804 (828) 681-5172 |
| Concord 5733 Davidson Highway Concord, NC 28027 (980) 777-8345 | Greensboro 4737 McConnell Center Dr Greensboro, NC 27405 (336) 665-0110 | Greenville 1501 N Memorial Dr Greenville, NC 27834 (252) 695-6200 | Raleigh 6515 Chapel Hill Rd. Raleigh, NC 27607 (919) 851-2030 | Wilmington 3252 US HWY 421 N Wilmington, NC 28401 (910) 254-2031 | Columbia 3109 Charleston Hwy West Columbia, SC 29172 (803) 794-6150 | Greer 525 Old Jones Rd. Greer, SC 29651 (864) 877-8962 | Ladson 285 Treeland Drive Ladson, SC 29456 (843) 486-8080 |

Purchaser:

CITY OF MONROE **Sourcewell Contract # 011723-KOM**
 300 West Crowell Street
 Monroe NC 28112
 Attn: Kyle Edwards

Linder Rep: JORDAN WIKE

Doc # **jwike-0138**
 Date **May 13, 2025**
 F.O.B
 Terms

| Equipment Description | Serial # | Stock # | Ext. Price |
|-----------------------|----------|---------|--------------|
| KOMATSU WA200-8 | TBD | TBD | \$176,710.00 |

Machine Specifications:

WA200-8 Komatsu Wheel Loader
 (x4) TIRE ONLY 20.5R25 XHA L3 MICHELIN
 200/250-5L & PT RIM FOR 20.5-25 TUBELESS
 BOOM - STANDARD
 2-SPOOL VALVE W/MONO LEVR
 BUCKET CYLINDER, STANDARD
 ENGINE INTAKE, STANDARD
 KOMATSU HYDRAULICS FOR QUICK COUPLER
 One year unlimited hour full machine warranty included

Komatsu Care 3 Year / 2000 Hour Value of \$7,137.63

Attachments:

Pin On Bucket 2.75 YD X 100.39

Warranty: Premier Months 48 - Hours 4000

| | |
|---------------------------------|---------------------|
| Equipment Pricing | \$268,497.00 |
| Sourcewell Discount | (\$128,879.00) |
| Equipment Subtotal | \$139,618.00 |
| PDI/Attachments/Reserve/Freight | \$37,092.00 |
| Sales Tax | \$0.00 |
| Total Balance Due | \$176,710.00 |

**Taxes and fees are based on terms above. Subject to change based actual delivery location.*

Jordan Wike, Mainline Sales
 5733 Davidson Hwy • Concord, NC 28027
 336-665-0110 Office • 980-293-4868 Cell
 jordan.wike@linder.com www.linder.com

CONDITIONS OF SALE

1. Buyer agrees to pay the amount shown on the face of this order. All payments are due at the offices of Linder Industrial machinery Co., Inc. Plant City, Florida.
2. Buyer agrees that Seller shall retain a security interest in and to the property sold hereunder and any additions or improvements thereto, until payment of the entire purchase price to Seller. Buyer shall execute a Uniform Commercial Code Financing Statement for filing by Seller to perfect the security interest retained in Seller. If any note is given in connection herewith, it shall evidence the indebtedness only and not full payment and the security interest retained by Seller constitutes security for the payment of amounts owing under the note. Unless otherwise provided on the face of this agreement, or any note in connection therewith, the purchase price shall bear interest at the rate of eighteen percent (18%) per annum or, if different, the highest nonusurious rate allowed by law, upon the unpaid balance, if any, until maturity and after maturity at the highest lawful rate. The security interest of Seller in the property sold hereunder shall also extend to all amounts owing under the terms of this contract, including, without limitation, interest, court costs and attorneys fees if incurred by Buyer. Upon delivery of the equipment purchased hereunder, Buyer agrees to execute such notes, security agreements, financing statements and other documents requested by Seller to evidence the obligation and security interest provided herein. Seller's security interest includes proceeds of collateral, if any.
3. Buyer shall not sell, pledge or mortgage the property described herein, nor sell or assign this contract, without Seller's written consent.
4. The property shall remain personal property; not become a part of the real estate and shall not be removed from the county where shipped without Seller's written consent.
5. Buyer agrees to procure forthwith and maintain fire insurance with extended or combined additional coverage on the property for the full insurable value thereof for the life of this contract and promptly deliver each policy to Linder Industrial Machinery Co., Inc. or assigns with a standard long form endorsement attached thereto, showing loss payable to Linder Industrial Machinery Co., Inc., and assigns as respective interest may appear; acceptance of policies in lesser amounts or risks shall not be a waiver of Buyer's foregoing obligations.
6. All risks of loss, damage or destruction shall at all times be on Buyer and shall not release Buyer from his obligation to pay the purchase price.
7. Buyer agrees to pay promptly all taxes, assessments, license fees and other public or private charges when levied or assessed against the property, or this contract, or any accompanying note, and to satisfy all liens against the same.
8. This instrument shall constitute the entire agreement between the parties and shall not become a contract until approved and accepted by an officer of the Seller; and shall be subject to strikes, lockouts, accidents, fire, delays in manufacture or transportation, acts of God, embargoes, or governmental action or any other cause beyond the control of Seller, the occurrence of which shall absolutely absolve the Seller from any liability hereunder.
9. All shipments are F.O.B. shipping point unless otherwise expressly stated on the face of this order. All trade-in allowances are on the basis of equipment delivered to the yard of Linder Industrial Machinery Co., Inc., at Plant City, Florida. Buyer warrants that equipment traded in is free from any and all encumbrances unless otherwise noted on the face of this order.
10. "IF THE PROPERTY SOLD HEREUNDER IS USED, IT IS SOLD "AS IS" AND IS NOT GUARANTEED AS TO CONDITION. IF THE EQUIPMENT IS NEW, IT IS GUARANTEED ONLY TO THE EXTENT OF THE MANUFACTURER'S WARRANTY, AND SELLER MAKES NO WARRANTY AS TO MERCHANTABILITY FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER WARRANTY WHICH EXTENDS BEYOND THE DESCRIPTION ON THE FACE HEREOF."
11. Time is of the essence in this contract. If any of Buyer's debt be not paid promptly when due or if the property be removed or disposed of or encumbered or if other breach occurs, all unpaid sums shall, at the option of the Seller, become immediately due and payable, and Buyer agrees to return the property on demand, and, to the extent permitted by law. Seller or assigns may without notice or legal process enter any premises where the property may be and take possession of it and retain all prior payments as partial compensation for its use, and the property may be sold with or without notice at private or public sale, with or without having the property at the sale, at which Seller or its assigns may purchase, and the proceeds thereof, less expenses of retaking, repairing, holding, reselling and reasonable attorney's fees, credited upon the amount unpaid, and Buyer will pay the balance forthwith as liquidated damages for the breach of this contract, any surplus, however, to be paid to Buyer.
12. Seller shall not be held liable or responsible for any damages, whether on account or personal injuries or otherwise, suffered or sustained in the operation of the property, nor for any damages resulting to the Buyer by reason of any delays or alleged failure of said property to operate.
13. Buyer agrees to pay reasonable attorney's fees and court costs for the enforcement of Seller's right after Buyer's default.
14. Seller's responsibility for shipments ceases upon delivery to transportation company, and any claims for shortages, delays or damages occurring thereafter shall be made by the Buyer directly to the transportation company. Any claims against the Seller for shortages in shipments shall be made within fifteen (15) days after receipt of shipment.
15. If Buyer by his conduct or notice breaches any of the terms of this contract, Seller shall be entitled to retain any advanced deposit as liquidated damages without any restriction on the Seller to institute legal action for actual damages sustained as the result of the breach which are in excess of the deposit so forfeited.
16. Failure of Seller to declare any default by Buyer or to enforce any term of this contract shall not constitute a waiver of the right of Seller to enforce any term hereof or to declare any default (including that not enforced or declared) in the future; all of Buyer's rights hereunder are cumulative and not alternative. If Seller assigns this contract, it shall not be assignee's agent for any purpose; Buyer will settle all claims, defenses, set-offs and counterclaims it may have directly with Seller, and not set up any thereof against Seller's assignee. No waiver, or change in this contract or any related instruments, shall bind such assignee unless in writing signed by one of Seller's officers.
17. Any controversies shall be settled, or litigated under the applicable law of the State of Florida, and any litigation shall be tried by the Courts of Hillsborough County, Florida, exclusively.
18. The Purchaser agrees that the Seller shall not be responsible for delays or failure to supply said property due to strikes, manufacturer's production, fire, war conditions, governmental actions or other causes beyond its control, nor for damages of loss during transportation. Acceptance of delivery from the carrier by Purchaser shall constitute a waiver of all claims for damage or delay from whatsoever cause.

Purchase has read, understands, and acknowledges that this contract is also subject to the terms and purchaser grants seller a security interest in the above equipment until payment in full of purchase price. Acceptance must be signed by authorized representative of Seller to be effective.

Company

Date

Signature of Purchaser

Title

Accepted by Linder Industrial Machinery Company by: _____

Jordan Wike, Mainline Sales
5733 Davidson Hwy • Concord, NC 28027
336-665-0110 Office • 980-293-4868 Cell
jordan.wike@linder.com www.linder.com